Safe Stowage

External Affairs and International Trade Canada

Canada

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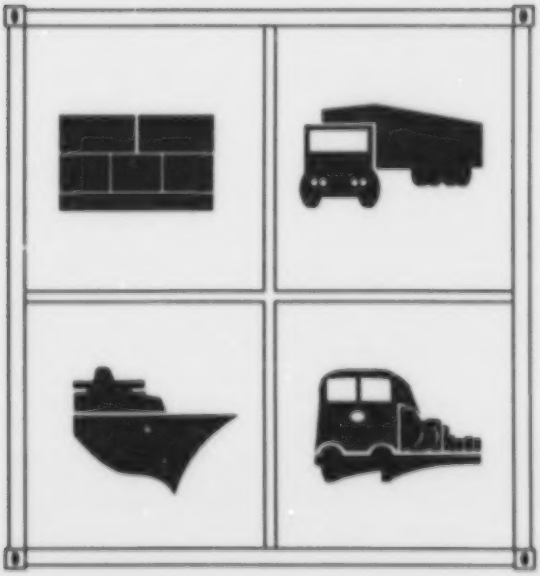
External Affairs and International Trade Canada (EAITC) has commissioned this guide for Canadian shippers and exporters to facilitate their international cargo movements. Safe, efficient and effective stowage will increase Canada's international competitiveness and will promote better customer relations and repeat orders.

EAITC's focal point on transportation is the Export and Transportation Services Division (TPS), located at 125 Sussex Drive, Ottawa, Ontario, K1A 0G2.
Tel: (613) 996-0446/996-0245; Fax: (613) 996-1225/952-3904.

SAFE STOWAGE



External Affairs and International Trade Canada

Designed and written for External Affairs and International Trade Canada,
Export and Transportation Services Division
by

THE MARIPORT GROUP LTD.

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Foreward

This booklet has been prepared to assist and encourage Canadian industry in its export mission. It demonstrates, in basic terms, proper freight stowage in sea containers and trailers, and is based on the fundamental premise that:

The finest products in the world are useless if, on delivery, they are found to be damaged.

According to the Canadian Board of Marine Underwriters Association:

Approximately 83% of all cargo losses are preventable.

Approximately 45% of preventable losses are due to poor handling and stowage.

This booklet provides guides and check lists that can be used by all personnel involved in export moves, to ensure that initial preventative steps are taken to protect their products or goods.

Because:

- Nobody needs or will accept damaged goods.
- Nobody will repeat order from a company which cannot guarantee to deliver the goods in an undamaged condition.
- No business can thrive without satisfied customers.
- No company can build its reputation, or plan for the future, on customer claims for damage.
- No company can compete effectively in the international marketplace by demonstrating a lack of knowledge of the rudiments of safe stowage.

Basic knowledge in the proper stowage of sea containers, or road trailers, for international moves will greatly increase confidence and assist in the building of viable export business and sales.

Causes of Loss

The figures on the facing chart, while based on CIGNA Insurance Company of Canada's own marine loss experience, are of a sufficiently large volume of claims to be considered generally representative.

Approximately 80 percent of all cargo losses are preventable.

The prudent shipper recognizes that efforts in properly preparing, packing and marking shipments have a great influence on successful delivery of his goods.

Attention to the basic principles and techniques of export packing will help reduce the loss of cargo due to casual or organized pilferage, minimize damage from improper or inexperienced handling/storage and protect against water damage.

Customer satisfaction and repeat orders are only two of the benefits that stem from a professional approach to cargo shipment. Reductions of time and money spent in tracing, locating and making adjustment on lost, damaged or pilfered goods contribute to a better bottom line.

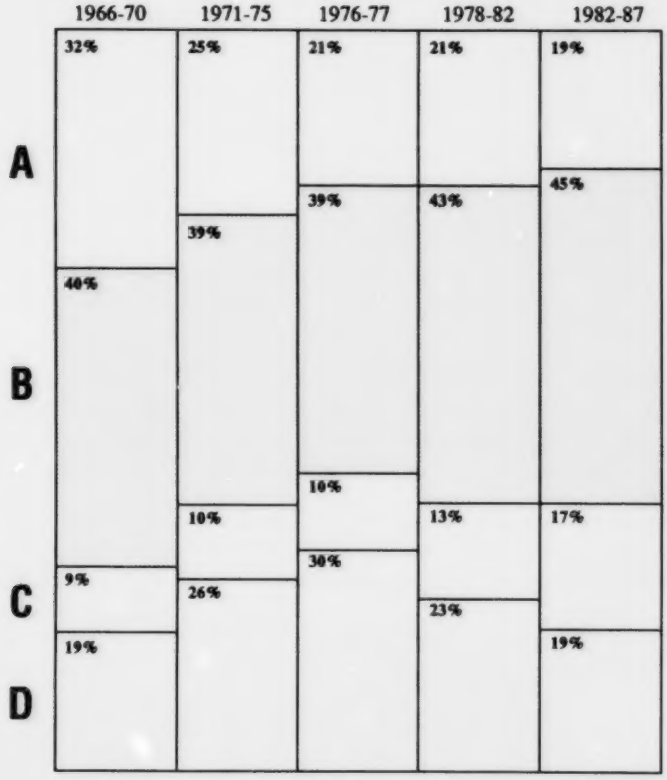
Theft Group
While one cannot prevent determined theft of a complete unit, proper attention to door condition, hinges, seals and locks, by the shipper can materially reduce casual pilferage.

Handling and Stowage
Virtually all of this loss group is preventable by the shipper

Water damage
Proper selection of container or trailer for cargoes that are prone to sweating, and/or protection of packages from container sweat, or minor leaks, result in major reductions in water damage.

Fortuitous Loss
There is little the shipper can do in this area. However, by selecting reputable carriers, the risk of incident can be materially reduced.

Cargo Losses



Losses

A	B	C	D
THEFT GROUP Theft, Pilferage and Non-Delivery	**HANDLING AND STOWAGE** Container Damage including Breakage, Leaking & Crushing, Contact with Oil & Other Cargo, Contamination and Infestation.	**WATER DAMAGE GROUP** Fresh Water, Condensation ("Sweat") and Sea Water.	**FORTUITOUS LOSSES** Sinking, Stranding, Fire, Collisions and Heavy Weather.

Chapter One

HOW THE AVERAGE CARGO MOVE TAKES PLACE AND WHO IS NORMALLY INVOLVED

Regardless of which terms of sale have been agreed for the actual goods in the container, whether it be on an F.O.B. basis (Free On Board) or on a C.I.F. basis (Cost, Insurance and Freight), or any of the many variations of these terms, the actual physical movement of the container and its contents is the same.

The container, during the move from point of origin to point of destination, will pass through several completely different transport modes. These moves are not exclusive to Canada, but will be repeated (or additional, or different moves substituted) in the country of destination.

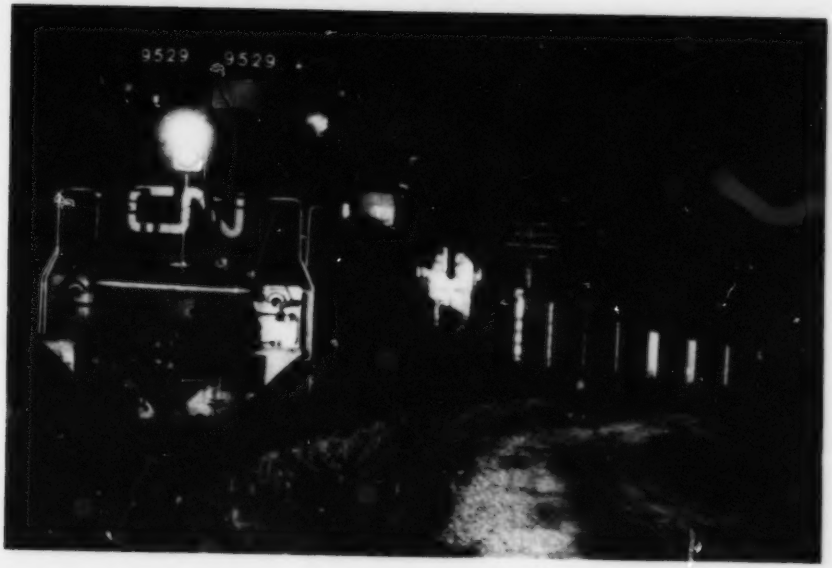
This move, whereby goods are stowed (stuffed) into a single container at the point of origin, and the container is not opened or emptied (de-stuffed) until final destination, and is transported by completely different types or modes of transport is referred to as an "INTERMODAL MOVE." It may also be referred to as a "MULTI-MODAL MOVE".

For the Canadian shipper, who has up until the present been accustomed to moves only within the continent, an international multi-modal move using a sea container requires a somewhat different approach to that of a truck or rail car move.

Canadian or North American continental moves typically involve between 1,000 to 2,000 miles (1500 - 3500 km) by either a single trucking company or an individual railroad. Alternatively it could be a combination of both transport modes. However, truck and trailer would both travel over fairly uniform highways or railroads.

By comparison, an overseas INTERMODAL MOVE, to an international destination, could involve distances of 8,000 to 10,000 miles (12,000 - 16,000 km) or more.

All modes (rail, truck and sea) may well be involved, and six to ten different handlings may occur.



Two of the many players in Canada's Export Market.

EXAMPLE OF AN INTERMODAL MOVE

The following is an example of a possible move that a sea container might make from any central point in Canada.

START

1. Loaded container lifted from ground onto trailer in shipper's yard. (move and placement)

2. Trailer from shipper's door to railhead. (10-20 miles, 15-30 km)

3. Lift from trailer to ground in rail yard by straddle carrier, or top pick. (storage and move).

4. Lift from ground by straddle carrier, or top pick onto rail car. (move and placement)

5. Rail move to port. (500 to 1,500 miles, 800 - 2,400 km)

6. Lift from rail car and move by straddle carrier, or top pick to place of rest on the quay. (storage, move and placement)

7. Straddle carrier move from place of rest to crane to be lifted onto the ocean vessel. (move, lift and placement)

8. Ocean voyage 9 to 14 days. (distance 3,500 to 6,000 miles, 5,600 - 9,600 km)

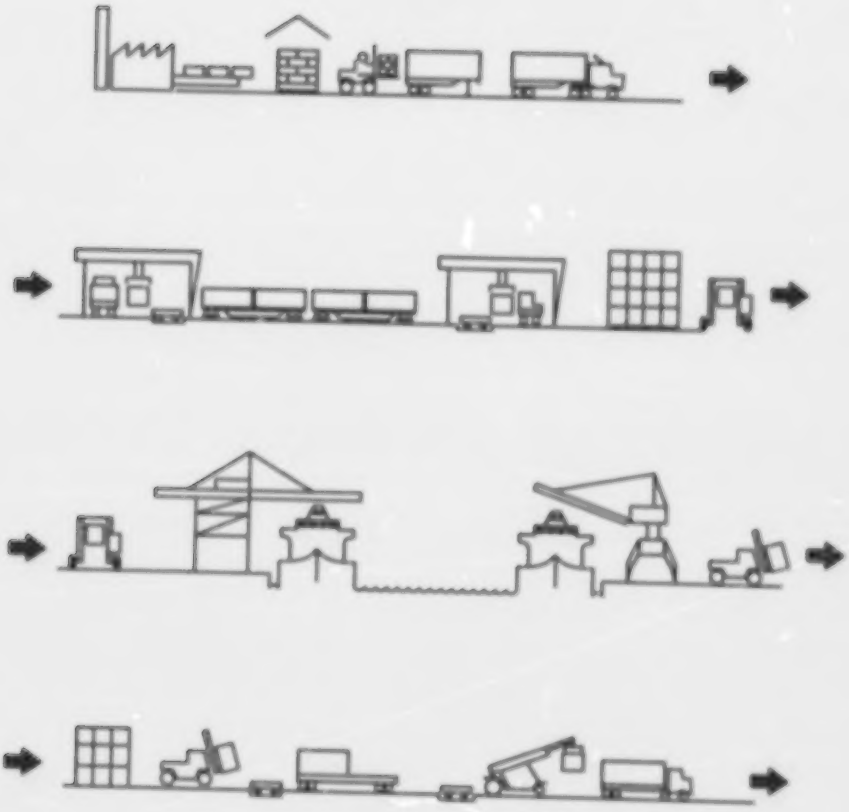
9. Lift by crane from ship to ground transfer to forklift truck and move to first place of rest in storage on quay. (lift, move, plus placement)

10. Lift by top pick, or forklift truck onto trailer for move to rail yard or a direct move onto rail car. (lift, move, and either local road trip or rail.)

11. In some ports the lift from the vessel may be direct onto a barge alongside for a move inland. (100 to 500 miles, 160 - 800 km)

12. Final lift and placement into the receiver's yard. (lift and grounding)

SCHEMATIC OF AN INTERMODAL MOVE



WHO HAS ACTUALLY HANDLED THE CONTAINER AND ITS CONTENTS?

Origin

- Packers.
- Forklift drivers.
- Truckers.
- Top pick operator/straddle carrier operator.
- Rail crew.
- Straddle carrier operator.
- Marine crane operator.
- Ship's crew.

Destination

- Marine crane operator.
- Forklift truck or straddle or top pick operator.
- Rail crew.... or.... trucker.
- Forklift driver.
- Unpacker

Bottom line.... What has the typical container and its contents just gone through?

- Twelve different physical moves.
- Eight separate placement procedures.
- Nine individual groundings.
- Possibly gone through several temperature and humidity changes.
- Nine different types of lifts.
- Travelled a distance of between 4,000 to 8,000 miles (6,400 - 12,000 km).
- Goods have been in transit 30 to 45 days or more from the time of loading into the container to receipt by the purchaser.
- Modes involved — truck — rail — marine.

Anticipating the multiple handling involved in an international move is essential to understanding safe stowage.

ENTITIES INVOLVED IN AN EXPORT MOVE

THE SHIPPER

You will wish to ensure the best possible service at the lowest possible price. In order to achieve this you will undoubtedly need to involve, either directly or indirectly, the following organizations.

THE FREIGHT FORWARDER

Most exporters usually have good ongoing relationships with a qualified and experienced freight forwarding company. The freight forwarder can, in many cases, look after all his customer's needs right from the exporter's door to the importer's point of receiving.

A professional freight forwarding company will, for example, take care of all the shipper's documentation and handle all of the arrangements required to transport the goods. They would look after the following:

- inland carriers,
- forwarding requirements,
- port terminal operators,
- steamship company,
- customs brokers at the port of discharge,
- agents for the final delivery to the receiver's required delivery point.

MARINE INSURANCE UNDERWRITER

It is important that in the very early preplanning stages the shipper should discuss insurance requirements not only with his freight forwarder, but also with a qualified, and experienced insurance agent, broker, or underwriter.

Careful, structured insurance coverage for both the cargo and the exporter's liability, in accordance with the terms of sale or letter of credit, are as important as the other physical requirements of the move.

THE TRUCKING COMPANY/INLAND CARRIER

The trucking company will be responsible for the pick up and delivery of the shipper's container to the local rail yard for the next move to the marine port. Alternatively, it may take the shipper's container directly to the port or the ship's side.

It is very important that a shipper should ensure that the trucking company has a good interface with the freight forwarding company and the next ongoing carrier. The trucking company can assist the shipper in the early stages by providing preplanning advice by early consultation. Positioning of shipper's cargo in the trailer or container can be planned. Bracing requirements or other precautions that may be required for the intended trip can be assessed and prepared along with the stowage plan.

THE RAILROAD COMPANY/INLAND CARRIER

Many railroad companies offer both trucking and freight forwarding services. The strength of the railroad is to provide long hauls, speed, reliability, and on-time delivery to link up with the vessels for ocean transit.

The prudent shipper would be wise to contact the railroad that he is planning to use and, as with the trucking company, discuss the stowage for his particular products. Railroads have both experienced staff and stowage manuals that can greatly assist a shipper in preparing his products for export stowage.

THE SHIPPING LINE

The ocean voyage is often regarded as the **"toughest leg of the journey."**

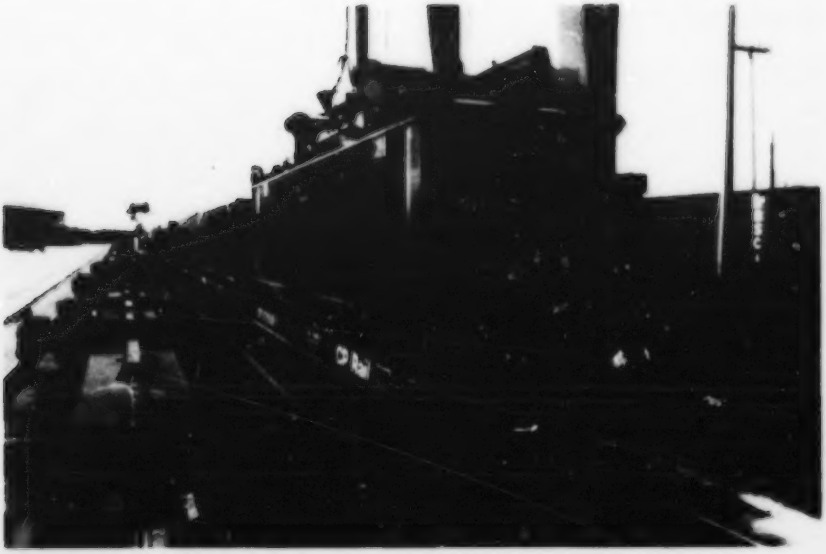
The shipping line has the responsibility for the safe transference of the shipper's container via ocean transit. As with all the above, the earlier the shipper has consultation the better.

In many cases, the shipping line will supply the actual container, hence it is important for them to have as many details as early and as accurately as possible, or to know a shipper's special needs, in order to provide the correct container for both stowage and transit requirements.

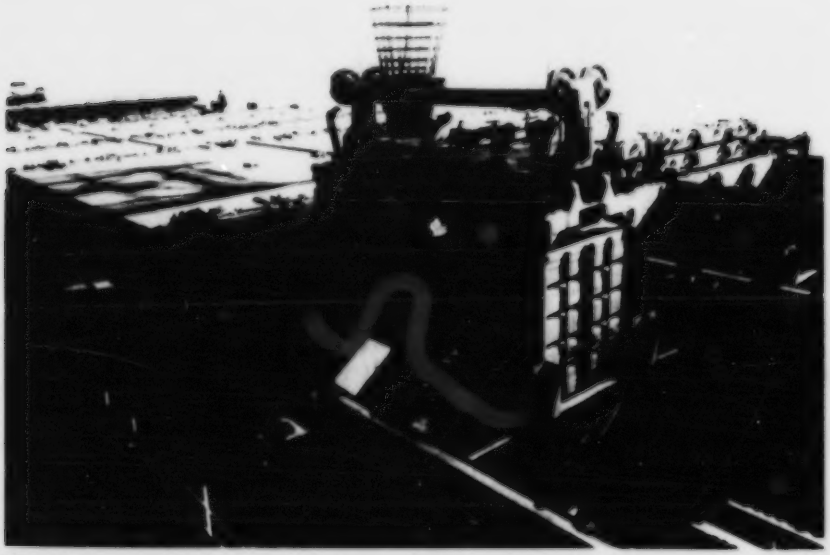
Planning and consultation are vital to avoiding damage.

Typical 45' van trailer.

Top pick discharging container from truck.



Overhead crane discharging container from rail car.



Container crane loading container into cellular containership.

Typical dockside container crane

Chapter Two

WHERE THE WEAK SPOTS LIE IN TRANSPORT MOVES

WHERE/WHEN/HOW DAMAGE OCCURS

Cargo and container handling equipment and techniques in the various terminals, rail yards, storage facilities and seaports of the world range from highly sophisticated professional operations to the very primitive.

The transit environment i.e. rough seas, substandard roads, heavy traffic, and uneven track sections, subject your goods to every imaginable motion and impact.

These conditions, considered alone or in conjunction, demand packing and the right stowage for the **"TOUGHEST LEG OF THE JOURNEY."**

It is important to be aware of all the potential motions and impacts that can take place during an international intermodal move. Under examination, the weak spots begin to show themselves.

1. HANDLING AND STOWAGE

- Improper forklift operations.
- Pushing and dragging cargo when inadequate material handling equipment, or inexperienced labour is used.
- Weight of superimposed packages.
- Failure to keep stacks plumb.
- Long term storage resulting in crushing.

2. TRUCK

- Braking and acceleration.
- Coupling actions and impact against loading docks.
- Shocks and vibrations.
- Road and weather conditions.
- Vehicular accidents (collisions and overturns).
- Swaying on curves or when overtaking or turning sharply.

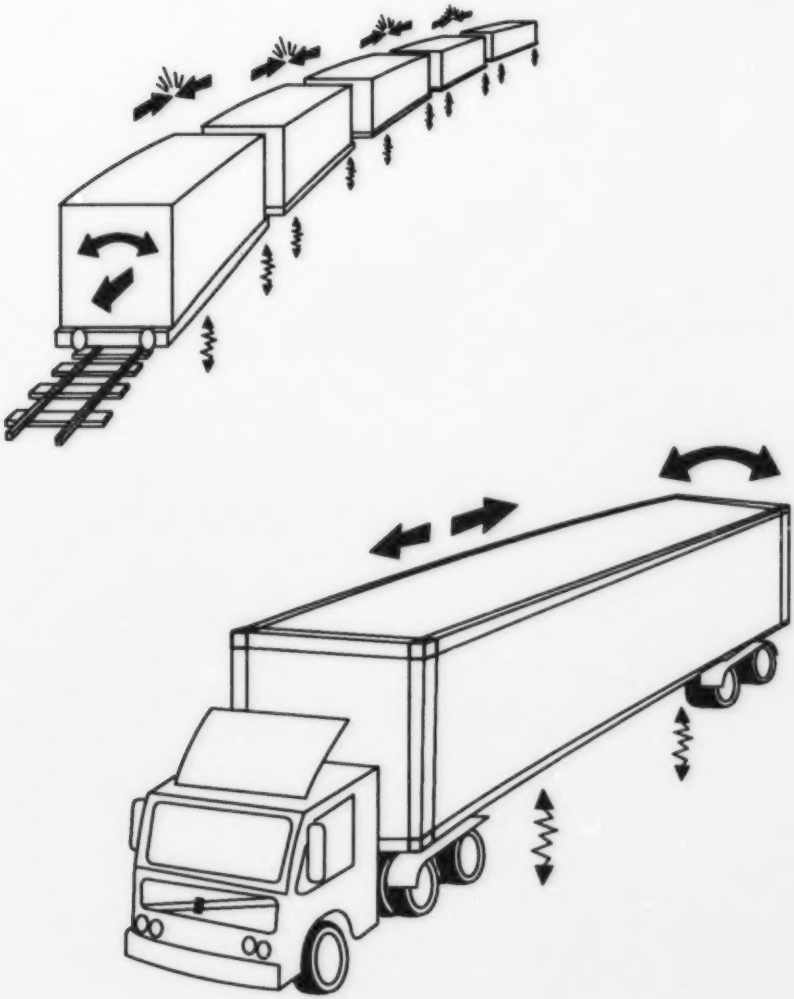
3. RAIL

- Acceleration and deceleration.
- Coupling impact during car shunting operations.
- Swaying on curves.
- Shocks and vibrations.
- Derailments.

4. TERMINAL HANDLING

- High vertical acceleration - up and down.
- Braking and acceleration.
- Shocks & vibration.
- Swaying & swinging.
- Tipping.

RAIL AND TRUCK MOTIONS



4. MARINE SEA VOYAGES

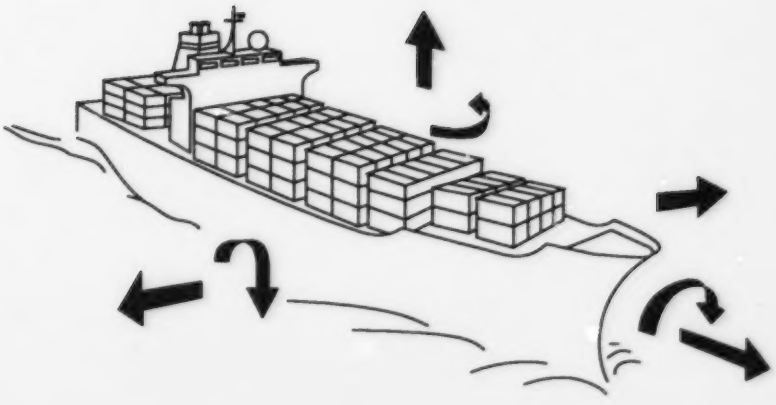
A ship moves in six different directions:

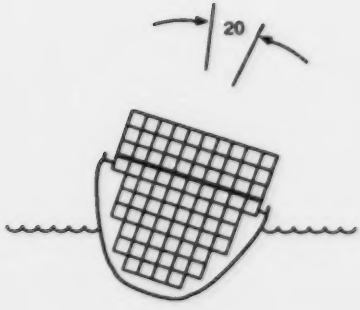
- Rolling, pitching, heaving, surging, swaying and yawing.
- Wave impact (water shipped over the bow impacting on deck stowed cargo or containers during heavy weather).
- Temperature extremes (resulting in heat or freeze damage).
- Condensation (ship's or cargo sweat).
- Flooding (cargo stored on inadequately drained surface).
- Navigation exposures, stranding and collisions.

The ocean leg of the voyage, in an international door-to-door move, can subject the cargo to severe motion stresses. These forces can be considerably greater than during a highway or rail move. A container may travel as much as 70 feet with each complete roll of a vessel, often as much as 3-4 times per minute.

Containerization of cargo does not automatically confer safe transport of your goods. Safety depends not only on how the container is stowed, but also on its structure, integrity, and the quality of the carrier.

SHIP MOTIONS





Great Lakes/Ocean bulk carrier with container capability.

Large cellular container ship.

Chapter Three

RESULTS OF IMPROPER STOWAGE

The following are examples of the results of poorly stowed cargo. With a little more attention, or preplanning, many of these incidents could have been reduced or completely avoided .

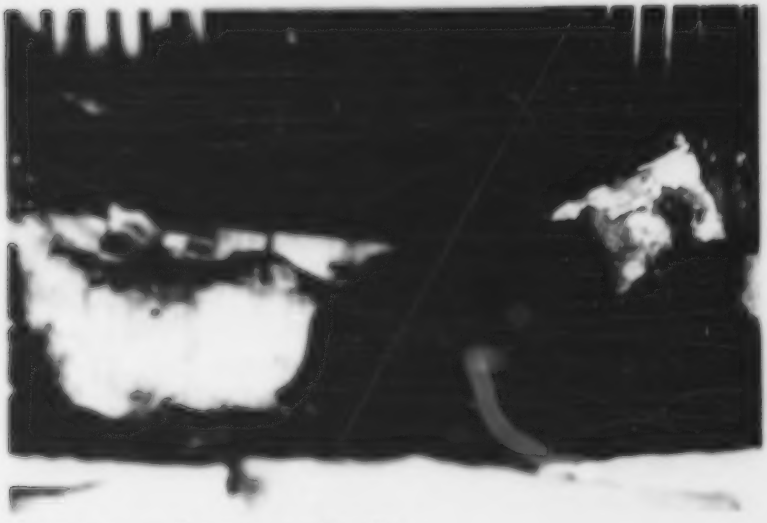
These pictures speak for themselves.

Explosion from friction by loose cargo

Heavy loads on top.

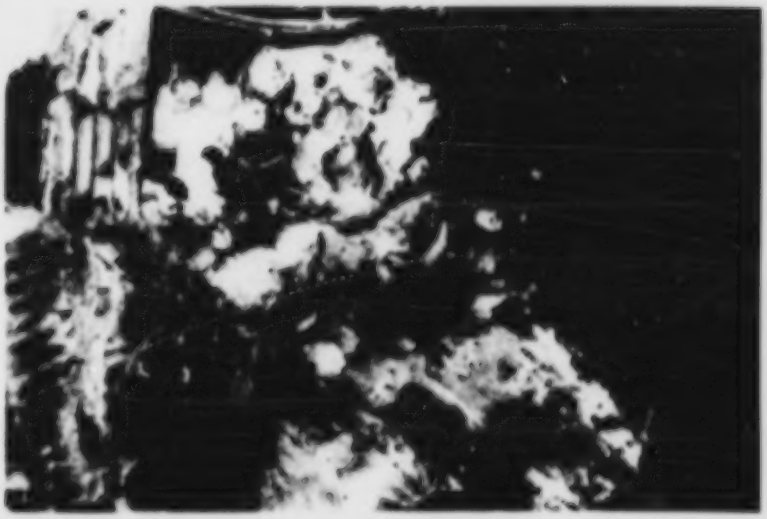
Too tight a stow, no separations, container leaked causing water damage.

No Bracing supports or strapping.



No cargo separations or proper layering.

No bracing.



Leaking container, cargo loaded with no separations.

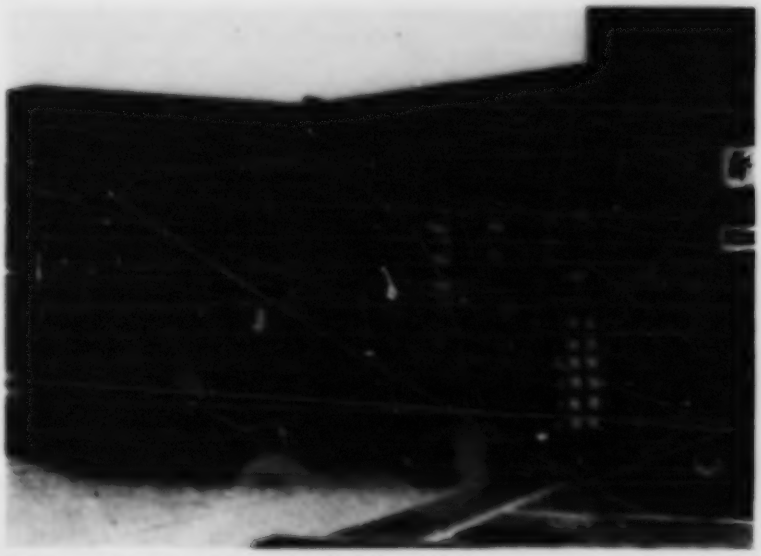
Chapter Four

HOW TO TAKE INITIAL PREVENTATIVE STEPS IN STOWAGE TO PROTECT YOUR GOODS FROM DAMAGE

The use of intermodal containers for the transport of a great variety of cargo has become increasingly popular in recent years. Development of specialized containers with a wide range of types, sizes and configuration permits containerization of most cargo. This facilitates prompt door-to-door movement of the complete shipment, with significant reduction in the risk of damage. However, in order to minimize damage you should:

- Determine the cargo to be shipped — volume and characteristics.
- Select the right container for the goods. — see chapter 6.
- Select the proper container service for the purpose.
- Make sure that the size of the container is matched to the cargo.
- Ensure that the carrier of your choice will handle it.
- Check that the weight to be loaded does not exceed the container's maximum permitted net weight.
- Inspect the container to ensure proper accommodation and protection of the cargo.
- Inspect the container on arrival for damage.
- Ensure that the doors can be closed and locked properly.
- Have the cargo and a definite plan of loading ready.
- Inspect goods prior to loading to ensure perfect condition, and that the intial packaging is correct and intact.
- Load with a concept of balance, each way, in the container.
- Take photographs of the goods in stowage, half way through when loading a twenty foot container and twice in a forty foot container (at one third and two thirds load).
- Stow, block, and lash the goods in the container in a manner which will prevent damage to the goods, container or transport vehicle.
- Ensure that drums and liquid containers are sealed tightly and not leaking.

- Whenever possible, use the lashing points attached to container walls and floors to secure your cargo.
- Ensure that container walls are not exposed to localized pressure from protruding cargo.
- Note all fragile signs and directional arrows. Make sure they are visible.
- Load carefully and slowly.
- Fence off large void spaces in a container by means of wooden screens/bulkheads.
- Block and brace carefully.
- Place all hazardous materials at the rear doors of the container where they are accessible.



It looks good, but it will probably be delivered in a damaged condition because of improper stacking, no bracing, strapping, or dunnage.

CHOOSING EQUIPMENT

☞ **PLAN BOTH YOUR SHIPMENT AND CARRIER BOOKING WELL AHEAD OF TIME**

☞ **CHOOSE YOUR CARRIER - In most locations there is a wide selection**

To find a carrier, look in the yellow pages or contact appropriate transportation associations. External Affairs and International Trade Canada, Export and Transportation Services Division can provide you with a current listing.

☞ **BE PREPARED TO GIVE THE CARRIER ALL PERTINENT INFORMATION ABOUT THE SHIPMENT**

Some essential information is:

a) Your location and type of access, loading dock, turning radius for vehicles, any restrictions.

b) Weight and volume of shipment, type of packaging, palletization and other specifics.

c) Any special considerations such as dangerous goods, awkward shapes, fragile items, oversize items or temperature control.

d) Special material handling considerations such as loading by crane required.

e) Destination of your shipment, address and type of unloading facilities.

Items such as above are essential for the carrier so that they can provide you with the correct vehicle for your shipment from the wide variety that are available.

BEFORE YOU START LOADING

☞ INSPECT THE FREIGHT

Sometimes the shipment is all pre-staged on the shipping floor and in other cases it is loaded as it comes from production. In either case, it must be given a final physical check before being loaded.

Inspect the freight for signs of:

- leaking or spills
- punctures, holes, rips or tears
- bulges
- stains
- strange noises or rattling
- collapsed cartons
- broken pallets or skids
- protruding items
- protruding nails in pallets
- check shrink wrap or banding

If anything looks wrong, check. Detection and correction of any of these problems before loading can save costly damage and problems in transit.

☞ COUNT THE PIECES

It costs everyone involved when you don't verify the piece count– check when the actual piece count does not correspond to the paperwork.

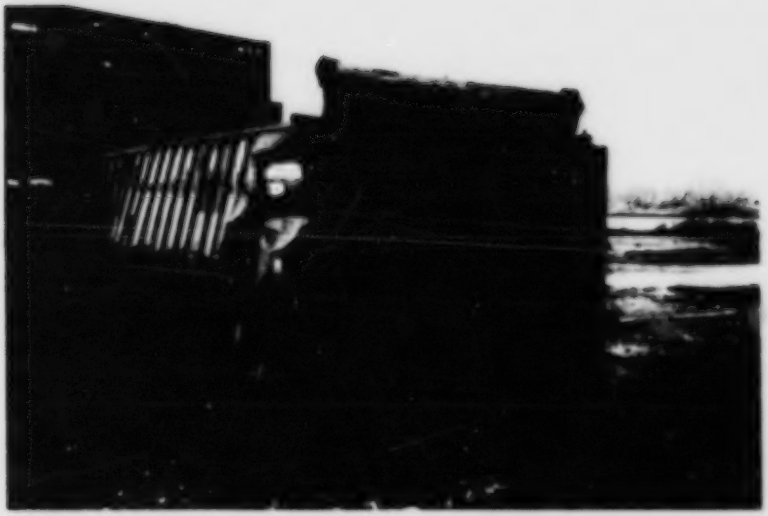
☞ INSPECT THE TRAILER OR CONTAINER

Always check the condition of the trailer or container on delivery and before loading.

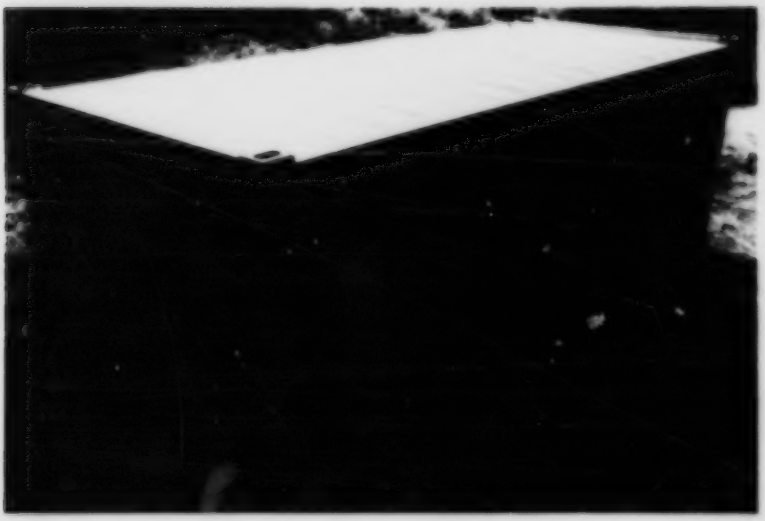
If there are any problems or if for any reason the trailer or container doesn't seem like the one you ordered–call your carrier or tell the truck driver.

It is a good idea to confirm with the driver, or the carrier's dispatch office, that the trailer or container provided will handle the weight of your shipment.

Containerization has greatly reduced cargo damages. However, this is largely dependent on the structural integrity of the container itself.

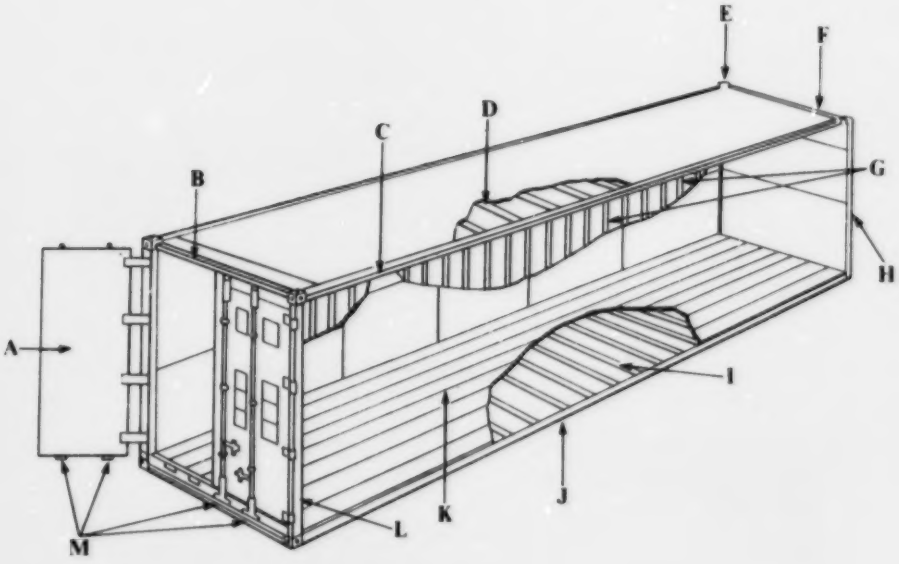


Some boxes are better than others!



The following checklist will assist you in inspecting the container or trailer to be sure it will properly protect your cargo. Containers or trailers that leak, or have inherent defects that endanger the cargo, or pose a safety hazard to personnel, must be rejected.

While the diagram below, and the descriptions which follow, refer directly to a freight container, most of the features are the same as those of a trailer.



LEGEND:

A	Rear Door	I	Cross Members
B	Rear Header	J	Bottom Rail
C	Top Rail	K	Floor Boards
D	Roof Bows	L	Rear Corner Post
E	Corner Casting	M	Locking Bars
F	Front Header		
G	Side Posts		
H	Front Corner Posts		

INTERIOR

Must be free from splinters, snags, dents or bulges. These may interfere with loading. Serious defects indicate the container is structurally unsound.

- "Light" tests whereby you enter the container, have the doors closed, and look for light entry via the roof, side and door panels and deck are a must. Also, previous patches and repairs must be checked to ensure they are watertight. Hose (water) or smoke tests are alternative methods of discovery.

- **Fittings**
  Cargo tie-down cleats or rings should be in good condition and well anchored. If ventilation openings are present, be sure that they have not been blocked off, and that they are equipped with baffles to prevent rain or sea water entry.

- **Cleanliness**
  Free of residue from previous cargo particularly odours that may taint your goods.

EXTERIOR

Must be free from dents, bulges or other damages; all may interfere with handling.

- **Doors**
  Be sure doors can be securely locked and sealed. Check that door gaskets are in good condition and watertight when closed. Inspect door hardware closely. If bolts or nuts can be easily removed from the outside with simple tools, it means that the container can be opened without breaking the seal or lock - an attractive invitation to the pilferer.

- **Fittings**
  A quick look at the lifting fittings at each corner of the container will reveal those that are obviously damaged or unsafe. check the fittings that secure the container to the trailer chassis; they should all be in working order and in use.

- **Covers/Hatch Panels**
  If an open-top container, be sure that the fabric cover supplied with the container is in good condition and can be properly secured. Check hatch panels for close watertight fit.

The following is a partial checklist of typical types of damage.

FRONT END

Front Panel
Dented, torn, holed, or punctured.

Patches
Loose, not of same material as panel, not sealed or riveted with waterproof customs approved rivets, poor welds, not primed or painted.

Top Rail
Bent, cut, crushed or fractured.

Corner Posts
Bent, broken, cut, gashed or distorted.

Upper and Lower Corner Fittings and Attachments
Fractured or distorted fitting, cracked attachment welds.

Rivets
Loose or missing.

Welds
Improperly made, not primed or painted.

RIGHT AND LEFT SIDES

Panels
Dented, torn, holed or punctured.

Corner Posts
Bent, broken, cut, gashed or distorted.

Upper and Lower Corner Fittings and Attachments
Fractured or distorted fittings, cracked attachment welds.

Door Holdbacks
Damaged or missing.

Top, Bottom Rails
Bent, cut, crushed or fractured.

REAR END

Doors
Difficulty in opening and/or closing.

Door Panels (Metal or other)
Torn, cut, holed or punctured.

Door Locking Bars (Rods)
Seized, bent, broken or twisted.

Door Locking Bar Cams
Bent or broken.

Door Handle and Retainers
Broken, bent or missing.

Door Cam Lock Retainers (Keepers)
Bent or broken.

Door Hinges
Broken, torn, twisted, binding or seized

Door Seals (Gasket and attachments)
Cut, torn or loose.

Door Header
Cut, broken, distorted or dented.

Door Sill
Cut, fractured or distorted.

Anti-Rack Device (if any)
Bent, cut, damaged or broken.

Rain Gutter
Bent, broken or crushed.

ROOF

Panel
Punctured, dented or distorted.

Upper Corner Fittings and Attachments
Fractured or distorted fittings, cracked attachment welds.

Corner Protection Plate (where provided)
Punctured, dented or distorted.

UNDER STRUCTURE

Cross Members and Attachments
Crushed, cut, bent, distorted or broken loose from bottom side rails or floor.

Tunnel Recess (if any)
Cut, dented, distorted or cracked weld attachments.

Forklift Pockets (if any)
Cut, dented, distorted, bottom straps broken or bent.

INTERIOR

Roof Sheet
Punctured, dented or distorted.

Roof Bows (if any)
Bent, cut or broken loose from roof.

Floor
Torn, gouged, broken, shrunken, warped, stained excessively.

Sides
Dented, torn, holed or punctured.

Logistic Track (side walls or floor)
Torn, loose, bent or missing.

Cargo Securing Rings or Strips (Floor or sides)
Torn, punctured, gouged, pulled loose, excessively stained.

Cleanliness
Debris, spillage.

Odours
Objectionable, contaminable.

Light Leaks

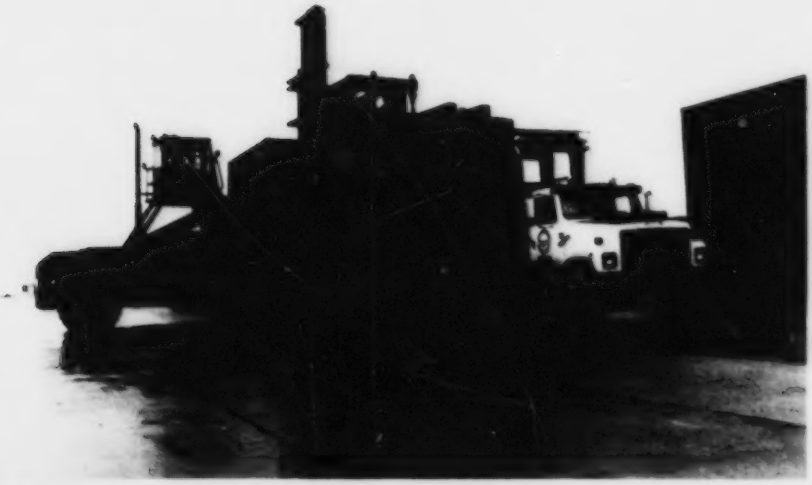
CHASSIS

Tires
Proper inflation, adequate tread depth, damages such as cuts, breaks or separated recap.

Twist Locks
Twist lock and lock handles are in good operating order.

Lights and Reflectors
Check for proper working order.

Frame
Look for structural damages, most particularly around the pin area.



Toplift handling 40' container.

PREPARING THE CARGO

An intermodal container is essentially a ship's hold on a reduced scale. When the containers are placed aboard ship for an ocean voyage, the cargo stowed in them is subject to the same forces and damage hazards, while at sea, that affect cargo shipped in break bulk fashion.

The same principles and techniques that govern export packing and cargo stowage of break bulk shipments are equally valid when preparing cargo for intermodal shipment.

PACK FOR THE TOUGHEST LEG OF THE JOURNEY

Be certain that goods cannot move within the fiberboard box, wood crate or other container in which it is packed. Immobilize the contents by blocking or bracing and/or provide adequate cushioning.

Cardboard or fiberboard boxes or wood crates must be able to withstand the weight of cargo stacked up to the roof (8-9 feet, (2.4-2.7m) depending on the container). They must be able to survive lateral pressures exerted by adjacent cargo –up to 70 percent of the vertical stacking weight pressure. This will help to prevent crushing as the container leans (up to 30°) during handling or at sea.

Heavy items, machinery and items not uniform in shape or dimension should be crated, boxed and/or provided with skids to permit ease of handling and compact stowage.

Where possible, cargo should be unitized or palletized. Cargo handlers are then required to use mechanical handling equipment to move cargo.

Provide adequate water damage protection. Use of dessicants (moisture absorbing materials), moisture or vapor barrier paper, plastic wraps, sheets or shrouds will protect cargo from water leakage or condensation damage. Corrosion susceptible machine parts should be coated with a preservative or rust inhibitor.

PLAN THE STOW

Observe Weight Limitations
Do not exceed rated capacity of container. Do not exceed permissible weight concentrations per square foot of floor load. Check highway weight axle limitations on both sides of the ocean voyage, because some containers have total capacities that exceed local permissible limits.

Distribute Weight Equally
Avoid concentrating heavy weights at one side or one end. Stow heaviest items on the bottom. Heavy, dense items should be boxed, crated or placed on cradles or skids to distribute weight.

Avoid Mixing Incompatible Cargo
Cargo that exudes odour or moisture should not be stowed with cargo susceptible to tainting or water damage. Items with sharp projections or awkward shape should be segregated from other cargo by boxing, crating, padding or use of partitions. Cargo subject to leakage or spillage should not be stowed on top of other cargo.

Observe Hazardous Material Regulations
Consult with carrier for regulations and and restrictions regarding shipment of:

- combustibles
- explosives
- flammable liquids
- flammable solids
- gaseous material
- radioactive material
- magnetized material
- corrosives
- poisons
- oxidizers

After receiving information from carrier, proceed as follows:

Label and mark hazardous material properly. Affix warning placards to container exterior. (See Annex 1 for IMO placards.) Note that placards vary throughout the world. What is acceptable at origin may not be in compliance with enroute or destination country's regulations. Check before shipment to avoid embargo or delay.

Record the nature of the cargo on all shipping documents.

Have All Cargo and Materials Ready Before Stowage Begins
Planning ahead facilitates proper placement, stacking and weight distribution. Additionally, it avoids removal of cargo already stowed to accommodate unexpected items, and permits installation of blocking, bracing and filling of voids as stowing operations progress.

Plan for Ease of Unloading
Stow cargo in reverse order of desired cargo discharge.

Be sure that forklift openings in pallets or skids face doors.

Fill the voids, but avoid wedging or jamming cargo in container.

Cosmetic Damage
The exterior packing of your commodity is often the first image the consignee sees of your company. A package showing exterior damage, although perhaps only cosmetic in nature, can cause loss of market, poor shipper/consignee relationships and more importantly cause the goods to be rejected and/or not be paid for even though the contents may arrive without damage.

Repackaging commodities can be very costly as well as time consuming. Remember, the appearance of your product is in many cases as important as the product itself.

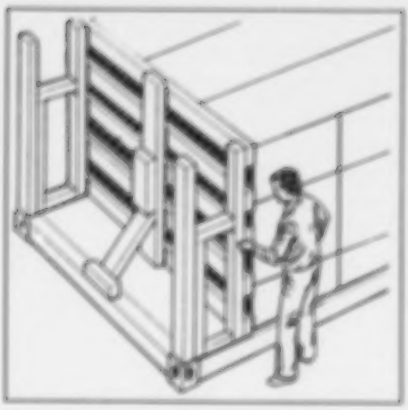
STOWING THE CARGO

Provide plastic or water-repellent shrouds over top and sides of load to protect against damage from water (ship's sweat or leaking containers).

Cardboard or Fibreboard Boxes
Boxes containing tightly packed, dense items that support sides and ends of the box are stowed using the "bonded block" method. Boxes containing lightweight or fragile items that provide little or no support to the box surfaces are stowed by stacking directly one atop the other. This method takes advantage of the vertical rigidity of the side walls and corrugations in each box.

Use plywood or lumber dunnage or fibreboard dividers as auxiliary decking sheets to segregate tiers of different sized containers.

Bags and Sacks "Crossties" Loading.



Bracing the completed load to prevent movement aft.

Fill side and voids to prevent movement of cargo.

When stacking directly on top of lower boxes, keep voids at the center and immobilize by constructing partitions or inserting inflatable securing materials.

Use dunnage or pallets on the container floor to elevate the cargo and allow drainage should there be water ingress.

Fill all voids by bracing or use fillers to prevent sliding or shifting of cargo.

Fill all voids to prevent sliding or shifting of cargo.

Use of Retaining Paper
Use rough paper between stowage blocks of boxes or containers with smooth exteriors, to prevent sliding or shifting.

Wood Boxes and Crates
Crates of uniform size and weight should be stacked directly one atop another.

Separate groups of crates with different weights or dimensions by use of partitions, dividers or auxiliary decking.

Fill voids at top, sides or ends by use of partitions or fillers.

If large voids are present, block, brace and tie down cargo to prevent movement in any direction.

Use dunnage on container floor to provide sump area for condensate drainage if crates are not skidded.

When bracing crates, apply bracing to strength members only, not to panels or sheathing.

Machinery or Heavy Items
Distribute weight by proper placement and use of cradles or skids.
Use deck cleats and bracing to prevent lateral and fore-and-aft movement. Use metal strapping to prevent vertical movement.

Extremely heavy, dense items should be properly secured to the container floor. Consult with carrier or container leasing operator for approved method(s).

Top-heavy items should be shored and braced to prevent toppling. Do not brace against the side panels of the container. All bracing must bear on a structural member of the container. Diagonally positioned bracing to the container floor is preferable for cargo that is top heavy.

Bags, Sacks and Bales
Use "crosstier" method of stacking bags and sacks. This consolidates the cargo and prevents sliding during transit.

Use sufficient dunnage layer on container floor to provide for condensate drainage.

Separate bags, sacks and bales from other cargo by using partitions.

Drums
Drums containing liquids should be floor loaded. The drums should be stowed on end with filler holes up as opposed to on their "rounds." Use dividers to protect drum rims from chafing damage.

RESTRAINING THE CARGO

Strapping
Heavy duty metal strapping is used to separate cargo units and for securing heavy or awkward items.

Nonmetallic strapping is used for lightweight cargo and has only a fraction of the strength of similar steel material. It would not resist shearing on a sharp edge, and will stretch as much as 9 percent.

Metal and plastic straps must be firmly anchored and properly tensioned.

Lumber

Should be clean and dry (not above 19 percent moisture content).

1. Use suitable hardwoods as filler, decking, blocking, bracing and for constructing partitions/dividers.

2. Most common sizes used are nominal 2" x 4". Should be free of significant splits or knots.

Plywood
1. Use for partition faces, dividers, auxiliary decking and blocking in limited spaces.

2. Should be clean and dry.

Inflatable Dunnage
Available in paper, fabric, rubber or plastic, in both reusable and disposable forms. A check for sharp edges and/or protrusions must be made to avoid punctures. Use it for filling voids, instead of light and medium duty bracing.

Patented Systems
Various patented cargo control and dunnage systems are available. Pre-built partitions, shelves, straps, laminated linerboard bulkheads and dunnage bars facilitate stowage and securing of cargo.

Fibreboard or Reinforced Cardboard
Available in sheets, rolls and in prescored structural shapes. Use sheet for dividers, decks, partition facings and auxiliary decks.

Use rolled fibreboard or reinforced cardboard sheets (solid or corrugated) for linings or facings and for filling voids.

When stowing bales, provide dividers between rows and tiers to prevent chafing and friction between metal bands or strapping.

COMPLETING THE STOW

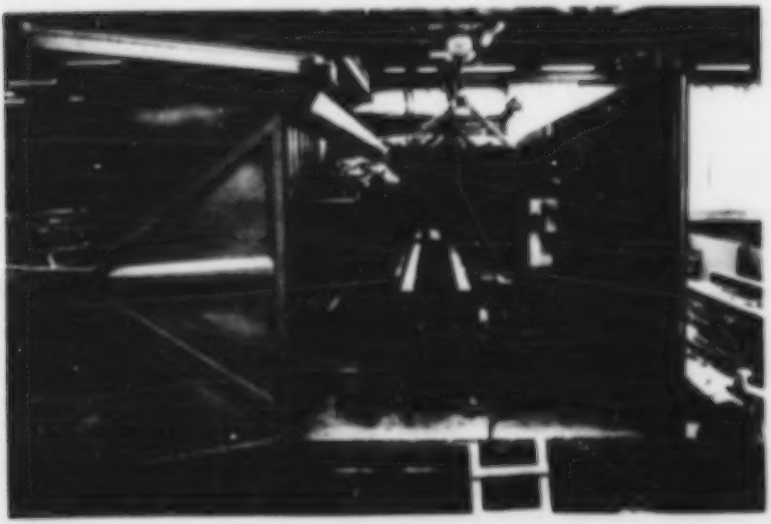
Isolate Cargo From Container/Trailer/Railcar Doors
Construct partition across rear of stowed cargo to prevent it from contacting doors and falling out when doors are opened.

Provide Water Damage Protection
Cover cargo adjacent to doors with plastic or waterproof paper sheets to protect cargo from possible water ingress via door gaskets.

Ventilated Cargo
Be sure air flow in container is unrestricted and that vents are open and clear.

Close and Seal Doors
Be sure all locking cams are engaged. Affix locks and seals. (On units with side and end doors, be certain to check both.) Record seal number and enter on shipping documents.

Examples of well planned stows.



☞ CONDUCT LOAD PLANNING - ENSURING ALL VOIDS ARE FILLED

Load planning simply means figuring out how you want to arrange the shipment in the container or trailer – before you actually start loading.

A tape measure is one of your most important tools in helping you figure out how the shipment will fit in the trailer or container. Make sure you know the exact clear internal dimensions of the trailer or box, and you relate this to your package size for length, width, and height.

A simple sketch or diagram can be an effective tool to reduce loading time and eliminate damage.

Benefits of Load Planning

- After you have worked out how the freight will fit, the actual loading will proceed more quickly and smoothly.
- Delays will be minimized.
- You will know that the shipment fits the trailer or container.
- You will know where the shipments are in the trailer or container.

Things that Go Wrong Without Load Planning

- The top tier may not fit properly and you may have to unload some pallets and start over. This can cause more damage and confusion on the shipping dock.
- You may have to unload the unit to turn pallets around so they will fit better.
- You may find that the shipment won't fit, and you need to unload and re-order another type or size of trailer or container.

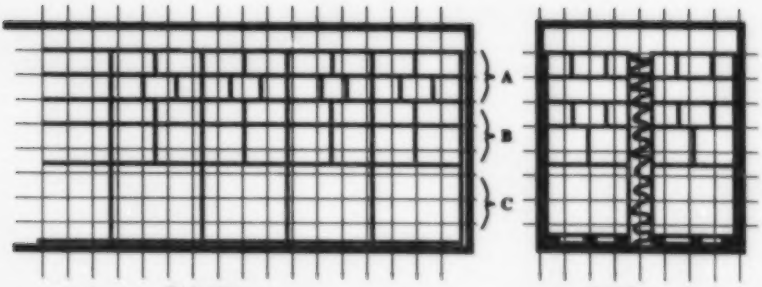
NOTE: 1. Make sure the shipment will fit before you start.

2. Use your tape measure.

3. Use a loading sketch or diagram.

- If you need help in load planning, ask your carrier.
- Use packaging materials extensively to fill empty space to stop cargo from moving.
- Problems that seem small at the time of loading can get much worse in transit, sometimes resulting in damage to the entire load. For example, a small leak can contaminate the whole shipment. A collapsed carton can let the whole shipment move around enough to damage other cartons.

LOAD PLANNING DIAGRAM



Shipment A - Light Freight in Cartons - "Top" Freight

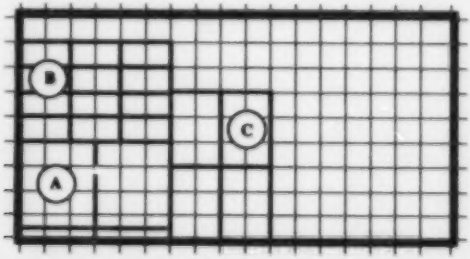
Shipment B - Heavier Freight in Cartons - "Mid" Freight

Shipment C - Palletized Heaviest Freight - "Base" Freight

A simple hand drawn sketch will do, but better still, prepare some "blank" side and end view diagrams for use in planning the stow.

Some companies use computers to help in this process.

KEEPING TRACK AS LOADING PROCEEDS



- In addition to having a good plan for the loading, along with good loading procedures and equipment, it is critical to keep track of the loading operation as it proceeds. Prepare a diagram to give you and your collegues a good idea of what is already loaded.

- Keep an accurate count of the pieces loaded at all times. Have one person responsible for this. Losing track of the piece count can cause great confusion. It can result in having to unload and recount or run the risk of shipping too many or too few items to your customer. It could even result in your carrier being overweight.

CHOOSE THE CORRECT HANDLING EQUIPMENT

- **It is critical to select the appropriate equipment for your situation.**
- Correct handling equipment will not only make the loading go more smoothly and efficiently, it will also reduce damages.
- If you are loading with a forklift truck, make sure you use forks that are the correct length. Forks that are too long can damage the freight, as well as the trailer or container itself.

CORRECT PROBLEMS IMMEDIATELY - NOT LATER

- The follow-up required to correct problems can be very costly, involving time spent by your customer, your carrier, your office, and other parties. Many phone calls and paperwork are required to solve the problems. "You will lose customers."

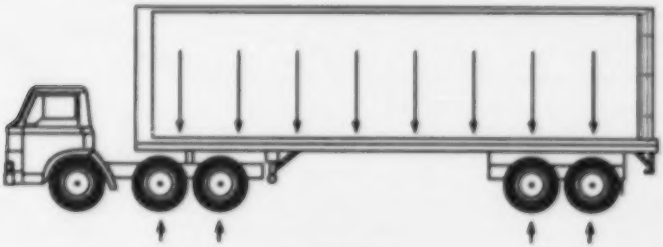
Some Examples of Problems Are:

- **A shrink wrapped pallet with leaning contents.** This may indicate a problem and will be extremely difficult to stow. Check whether it should be reassembled.
- **Odd shaped palletized load.** A single carton on top makes it extremely difficult to load anything on top of this. Check that it is in order for loading on the top tier.
- **Leaking or spilling contents.** Check leaks, this could damage the whole shipment and could be dangerous, depending on the substance.
- **Checker counts 8 pieces when paperwork shows 10 pieces.** Check before proceeding.
- **Symbols or description of goods on freight do not match paperwork.** Check before proceeding.

WEIGHT DISTRIBUTION ON LOADING

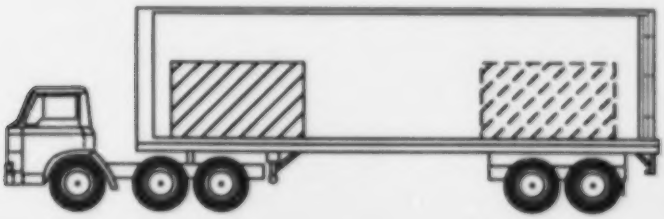
Although the descriptions and diagrams which follow describe weight distribution recommendations for trailers, the same principles apply to heavy goods stowed in a freight container.

NOTE: Carriers need specific accurate information concerning weight so that they can ensure government regulations are met. There are significant differences between maximum gross vehicle weights in Canada and the U.S.A. and most European countries.



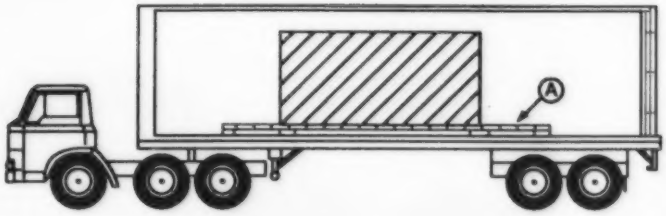
RIGHT
ILLUSTRATION NO. 1

Trailers are designed to uniform load distribution as shown. Distribute the load equally between the rear tires and the king pin which transfers its load to the truck.



WRONG
ILLUSTRATION NO. 2

Units loaded in either position indicated are incorrect because weight is not equally distributed to tires and king pin.



HIGHLY CONCENTRATED LOADS
ILLUSTRATION NO. 3

Not more than 25,000 lbs. can be loaded in any 10 linear feet (3m). Item (A) skid of adequate length and construction to properly distribute weight.

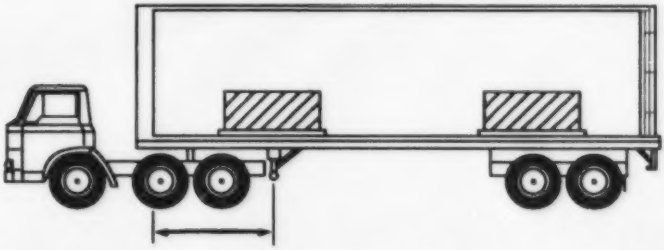


ILLUSTRATION NO. 4

TOFC trailers are often left unsupported by truck tractors and are lifted by cranes. In positioning two concentrated weight units as illustrated, position the forward unit for equal weight distribution on the landing gear (approximately 10 feet (3m) from front of trailer).

Chapter Five

The following text and graphics summarize the Do's and Don'ts of cargo stowage.

HINTS ON STOWING YOUR CARGO

SECURING CARGO

1. Whenever possible use the lashing points attached to container or truck walls and floor to tie down your cargo.

2. Container or truck walls should not be exposed to localized pressure from protruding cargo sections.

3. When wooden wedges are fixed to the floor, it should be remembered that they will have to be removed again without damage to the floor.

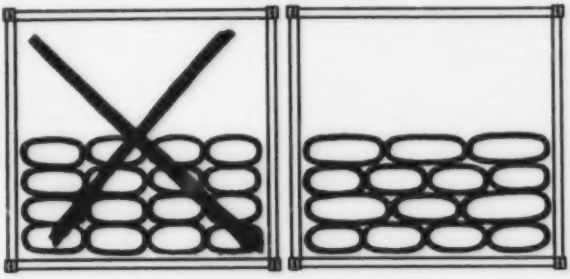
4. Large void spaces should be "fenced off" by means of wooden screens or bulkheads, etc. Small void spaces can be filled with air cushions, wood shavings in sacks, plank separation, or use of loading lashes.

5. Doors have to be secured against sliding cargo (nets or planks).

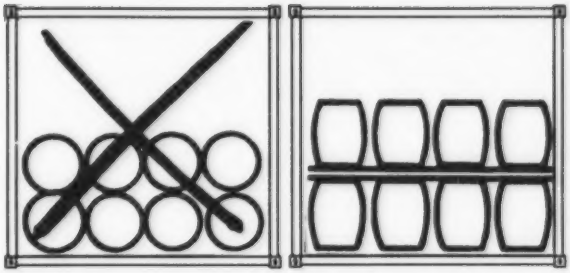
6. Loading lists and invoices should be attached securely to easily visible places in the container or truck.

7. Door locks and customs seals should be checked carefully before despatch.

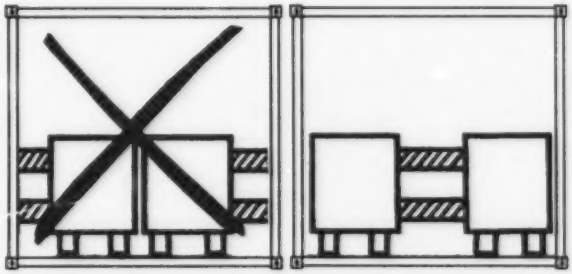
1. Bagged Cargo:
Should be stowed on the bricklaying principle with alternating tiers. This consolidates the cargo and minimizes sliding during transit.



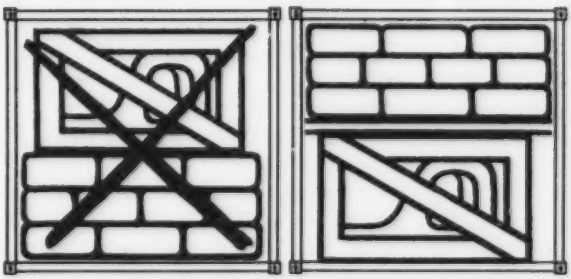
2. Barrels:
To be stowed in upright position (bung on top) with horizontal planking to separate the tiers.



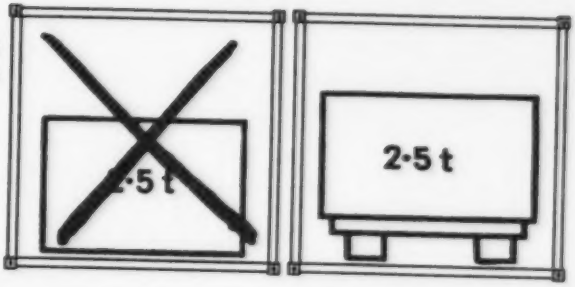
3. Palletized Cargo:
No space should be left between pallets and container walls; space left in the middle to be tightly filled with suitable material.



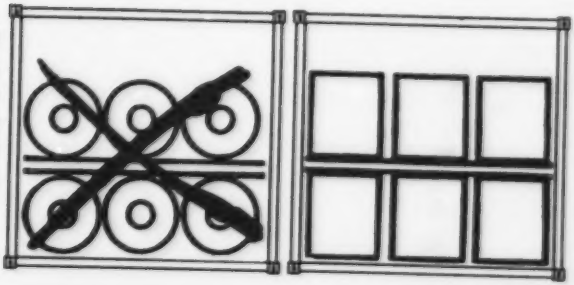
4. Light Packages:
To be stowed on top of heavy ones.



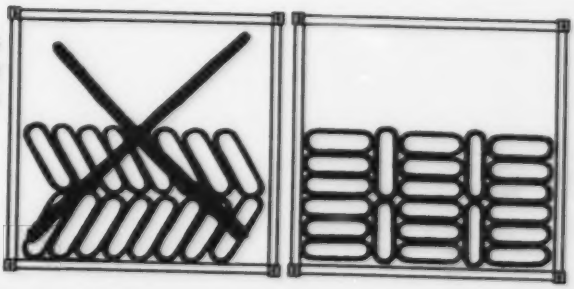
5. Heavy Pieces:
To be mounted on skids to prevent damage to floor or cargo when unloading.



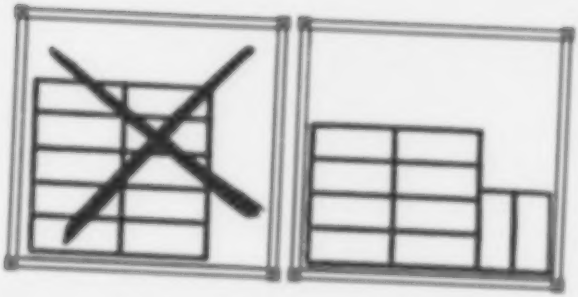
6. Rolls :
Paper rolls should be loaded upright. Spools, coils, carpet rolls may be loaded on their sides, but fork lifts must be fitted with appropriate handling devices.



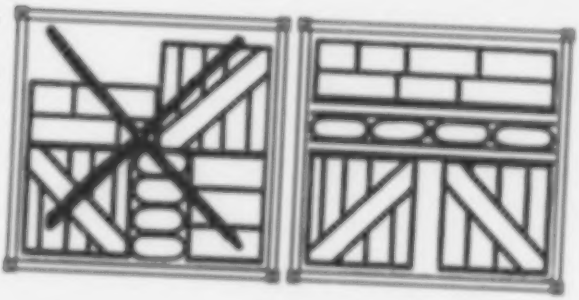
7. Tires:
To be stowed flat in piles with upright tires wedged between piles to eliminate movement.



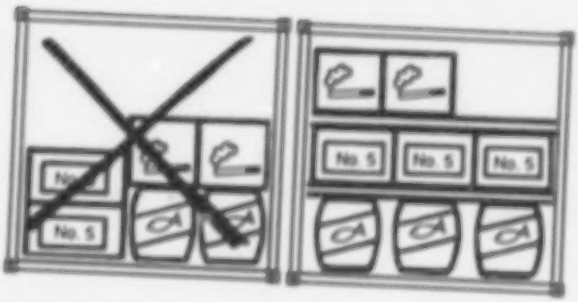
8. Packages of Equal Size:
Prepare a stowage plan beforehand to save time and space.



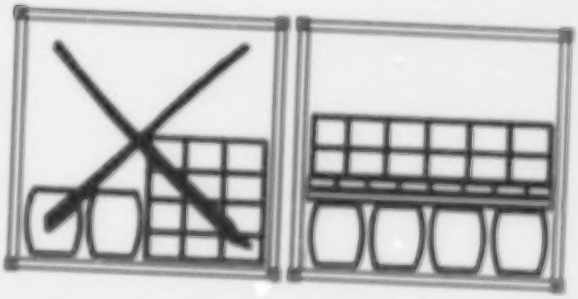
9. Mixed Load (eg Boxes, Cartons & Bags):
Should be segregated with heavy items at the bottom.



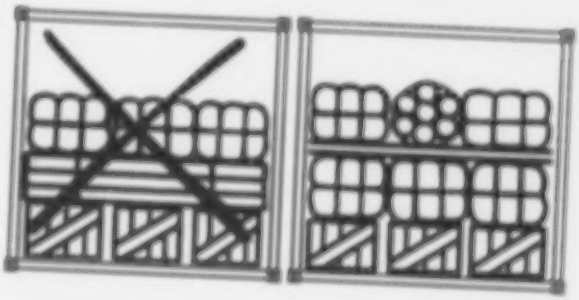
10. Odorous Cargo:
Should not be loaded near any cargo which is sensitive to smell contamination. If sensitive cargoes must be shipped together then ventilated or temperature controlled units should be used.



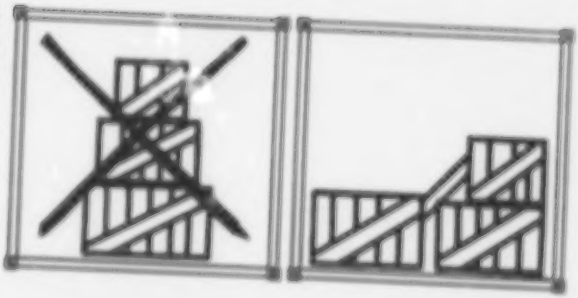
11. "Dry" and "wet" cargo:
Should only be loaded in same container when they can be strictly separated. "Wet" cargo should be loaded on the floor, and adequately covered with boards on which the "dry" cargo can then be stacked.



12. Packages with sharp edges should be loaded in the middle, leaving space to walls. Very special care must be taken to protect load against sliding.



13. If container is not fully loaded, cargo must first be evenly stowed on floor before layering.



Chapter Six

STANDARD EQUIPMENT FOR INTERNATIONAL OR CROSS BORDER MOVES

SELECTING THE RIGHT CONTAINER

Consultation with both the freight forwarder and the ocean carrier will permit selection of the type and size of container most suitable for the cargo.

Many types and sizes are available to the shipper. The most common is the standard dry cargo container that may be used for a great variety of general cargo goods. Keep in mind however, that containers are not yet truly metric and are usually identified by their imperial measure. The discussion below refers to outside dimensions and the reader is referred to page 53 for usable interior dimensions and capacities.

Width

At the present time, all containers in international trade are 8'0" maximum width. However, some special containers are appearing in European intermodal moves that are 2.5m wide. This is very close to the 102" standard van width in North America, and is designed to accept a better pallet stow. The extra width to 102" is becoming a standard domestic container width with many 45', 48', and 53' boxes built to this dimension.

Length

Standard lengths in international trade are 20' and 40', although 45' units are beginning to be carried in both Pacific and Atlantic routes. The 48' and 53' box sizes are currently domestic U.S. traffic only.

Height

Containers generally come in four heights, of 8'0", 8'6", 9'0", and 9'6". However, some heights are more common than others. Typically, a 20' box will be available in 8'0" and 8'6" with a few 9'0" and 9'6". 40' boxes are usually 8'6" or 9'6" "High Cube." 45', 48', and 53' boxes are only available in 9'6" heights.

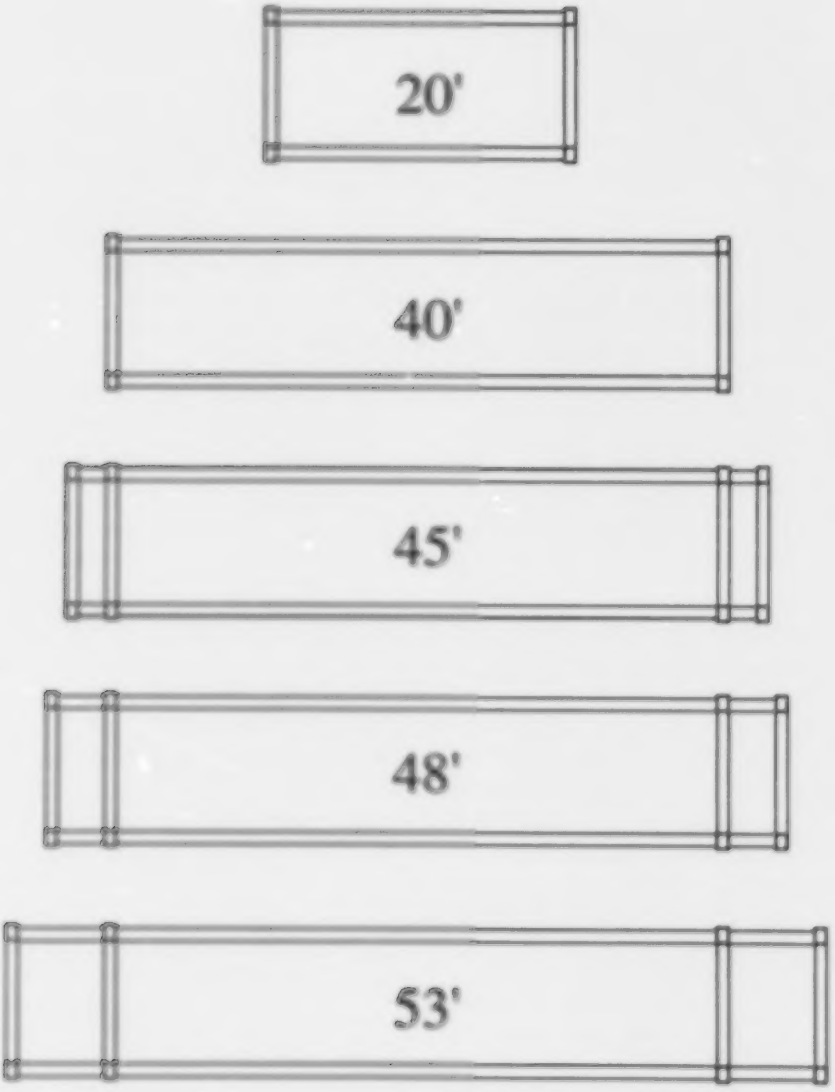
Payload

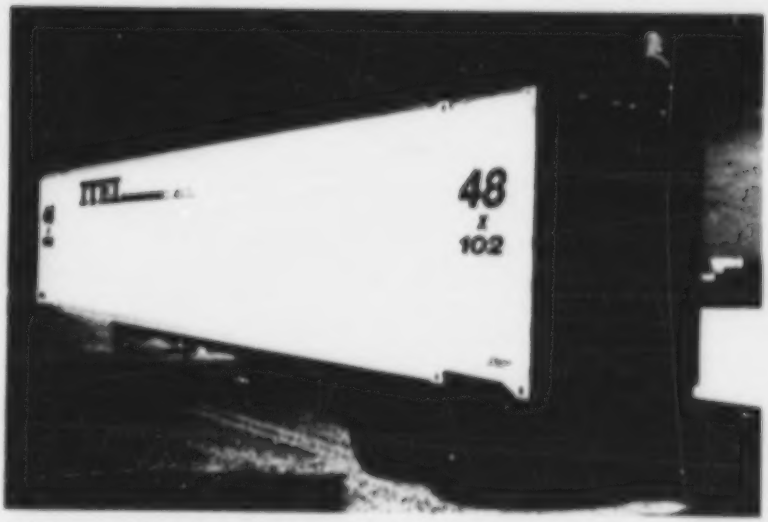
Actual payload depends on both the type and size of container. Greater payloads are achievable with aluminum boxes than with steel and depend on the manufacturer.

20' containers now have a maximum permitted gross weight of 24 tonnes, note however, that some older containers are only rated to 20 tonnes, which was the original standard.

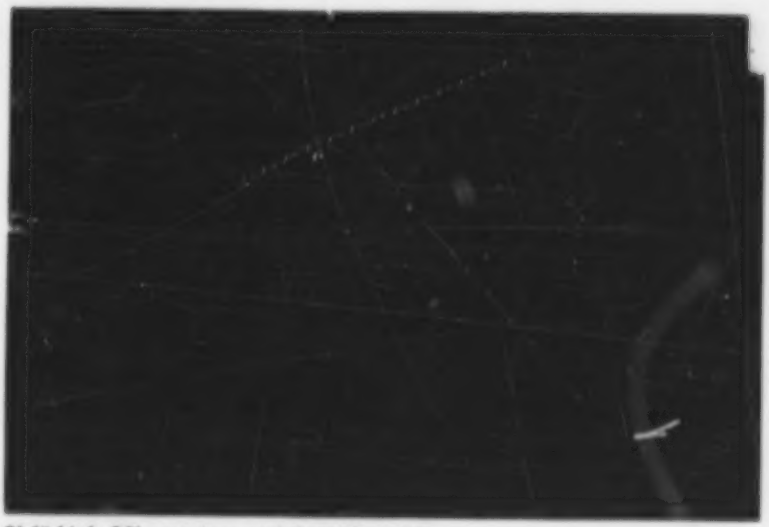
40', 45', 48', and 53' containers are rated at 30.48 tonnes maximum gross weight.

CONTAINER SIZES





48' Domestic Freight Container.



9' 6" high, 20' container with fork lift pockets.

TYPICAL SPECIFICATIONS OF DRY FREIGHT CONTAINERS

Category	Exterior Dimensions	Interior Dimensions	Door Opening	Cube Capacity	Weights
20' Dry Freight Container	Length = (19' 10½")	(19' 3⅞")			TARE 2,340kg (5,160lbs)
	Width = (8' 0")	(7' 8⅛")	(7' 8⅛")	(1,1730ft³)	Max. Payload 21,660kg (47,740lbs)
	Height = (8' 6")	(7' 9⅝")	(7' 5⅛")	33.2m³	ISO Max. Gross 24,000kg (52,900lbs)
40' Dry Freight Container	Length = (40')	(39' 5⅛")			TARE 3,960kg (8,730lbs)
	Width = (8' 0")	(7' 8⅛")	(7' 8⅛")	(2,391 ft³)	Max. Payload 26,520kg (58,470lbs)
	Height = (8' 6")	(7' 9⅝")	(7' 5⅛")	67.7m³	ISO Max. Gross 30,480kg (67,200lbs)
40' High Cube Dry Freight Container	Length = (40')	(39' 5⅛")			TARE 4,150kg (9,150lbs)
	Width = (8')	(7' 8⅛")	(7' 8⅛")	(2,692 ft³)	Max. Payload 26,330kg (58,050lbs)
	Height = (9' 6")	(8' 10⅛")	(8' 5⅛")	76.2m³	ISO Max. Gross 30,480kg (67,200lbs)
48' Domestic Dry Freight Container	Length = (48'0")	(47' 3⅞")			TARE 4,399kg (9,700lbs)
	Width = (8'6")	(8' 2⅛")	(8' 2⅛")	(3,463.1 ft³)	Max. Payload 26,077kg (57,500lbs)
	Height = (9'6")	(8' 11")	(8' 11")	98.01m³	ISO Max. Gross 30,480kg (67,200lbs)
53' Domestic Dry Freight Container	Length = 53'0"	(52' 6")			TARE 4,665kg (10,280lbs)
	Width = 8'6"	(8' 2⅛")	(8' 4")	3830 ft³	Max. Payload 25,815kg (56,920lbs)
	Height = 9'6"	(8' 10⅛")	(8' 10⅛")	(108.5m³)	ISO Max. Gross 30,480kg (67,200lbs)
European Wide Body	Length = 12,192mm	12,100mm			TARE 3,350kg
	Width = 2,500mm	2,450mm	2,420mm		Max. Payload 27,130kg
	Height = 2,743mm	2,517mm	2,424mm	74.8m³	ISO Max. Gross 30,480kg

Dimensions are usually supplied in feet and inches.
Readers are urged to make their own conversions to metric units.

SPECIAL TYPES AND NEW EQUIPMENT THAT MAY BE AVAILABLE

Specialized containers should be used for goods or commodities requiring unique handling, or being transported to particular environments.

Some types of specialized container are:

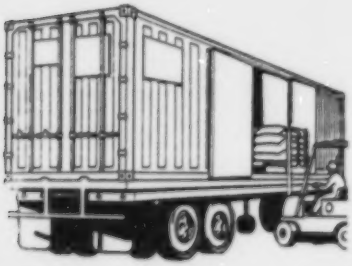
- Side loading fully enclosed.
- Open top.
- Ventilated.
- Refrigerated
- Liquid bulk.
- Dry bulk.
- Flat rack.
- Auto.
- Livestock.
- High cube.
- Half Height.

NB: It should be noted with special containers that their availability should always be checked with the container leasing companies, carriers or freight forwarders.

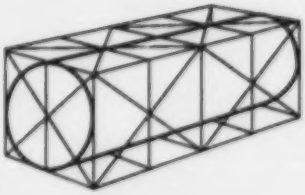
Side Loading, Fully Enclosed – Equipped with side doors for use in stowing and discharge of cargo where it is not practical to use end doors, as when the container must remain on a railcar while cargo is placed in or removed from the container.

Open Top – Used for carriage of heavy, bulky or awkward items where loading or discharge of the cargo through end or side doors is not practical. Most open top containers are equipped with fabric covers and are often termed "soft" or "rag" top containers. Some open top versions are fitted with removable hatch-type panel covers or detachable full metal roof.

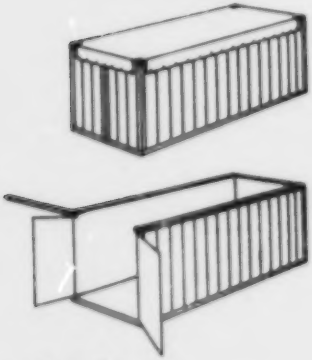
EXAMPLES OF SPECIAL CONTAINERS



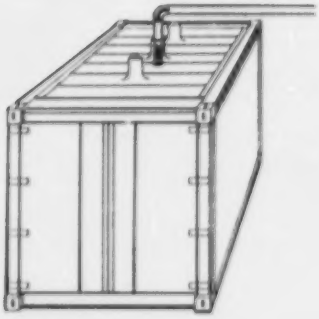
Side Loading, Fully Enclosed



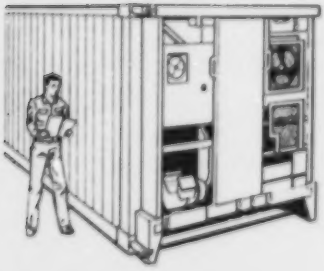
Liquid Bulk



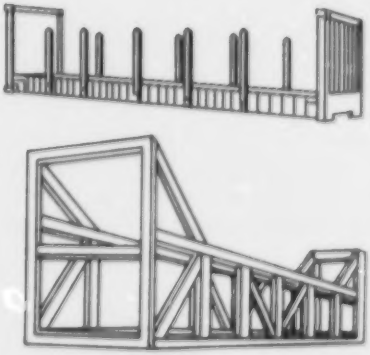
Open Top



Dry Bulk



Refrigerated



Flat Racks

Ventilated – Equipped with ventilation ports on ends or sides, and used for heat generating cargo or cargo requiring protection from condensation (sweat) damage. Versions with powered air-circulating fans are available. Vents are normally fitted with baffles to prevent entry of sea or rain water.

Refrigerated – Insulated and equipped with a built-in refrigeration system, powered by direct electrical connection or by diesel or gasoline generator. It is used primarily for foods or other commodities requiring a temperature controlled environment.

Liquid Bulk – Tank type containers for carriage of liquids. Some have been designed to high level specifications for carriage of certain hazardous materials.

Dry Bulk – Designed for carriage of bulk cargo such as dry chemicals and grains.

Flat Rack– Available in a variety of sizes and models. Flat racks are used for lumber, mill products, large, heavy, bulky items, machinery and vehicles. Some are equipped with removable sides.

Auto – Used for carriage of vehicles and available in enclosed or open versions.

Livestock – Configured for the nature of livestock carried; containers are available for transporting poultry, cattle and other livestock.

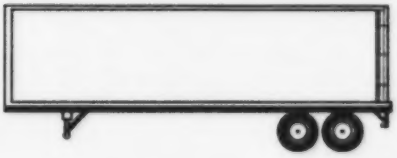
Half Height – Used for dense or very heavy cargoes where an open top is desirable.

EXAMPLES OF SPECIAL CONTAINER APPLICATIONS

EQUIPMENT TYPE	POSSIBLE APPLICATIONS
High Cube Containers	Carpets, appliances (eg. freezers, ovens), consummer electronics (eg. TV's, VCR's), low value tobacco, toys, high volume cargo.
Non ISO small Container/ Cargo Baskets	Supplies for remote inland or offshore drilling sites, household goods, small consignments, lock up storage. Air transportable consignments.
20 ft. Bulk Container	Malt, breads, grain, granules, gravel, sand, nuts and bolts, printers ink, screws, sugar and dry chemicals.
20 ft. Half Height (Open Top)	Drums, pipes, rails, rods, steel beams, and ingots, marble slabs, copper blisters/anodes, heavy ores, castings.
20 ft. and 40 ft (Open Tops)	Agricultural and construction machinery, boats, glass, ingots, logs, scrap, salted hides.
20 ft. Bulk Discharge Open Tops	Coal, ores, sand, glass cullett, scrap, fertilizer.
20 ft. Produce Carrier/ Open Side	Produce, livestock, sideload items.
20 ft. Ventilated Container	Beans, cocoa beans, coffee, onions, potatoes, produce, seeds, spices, tobacco, pulses, garlic, metal goods liable to rust damage, electronic goods.
20 ft. and 40 ft. Flatracks and Platform Flats	Agricultural machinery, air conditioners, boats, boilers, coils, construction, machinery, electric generators, electrodes, large irregular shaped items, logs, machinery, newsprint or paper rolls, pipes, rods, steel beams, tanks, tinplate, transformers, trucks, motor vehicles, overheight/ overlength items, plywood sheets.
Refrigerated Containers	Fruits, vegetables, fish, meat, any temperature sensitive cargo.

SOME TYPES OF TRAILERS AVAILABLE

SAMPLES OF THREE COMMONLY USED TRAILERS



45 ft. Van with Tandem Axle

48 ft. Van with Tri-axle

48 ft. Van with Mechanical Refrigeration and Tandem Axle

TYPICAL TRAILER SPECIFICATIONS

Trailer Type	Interior Dimensions In Ft. and Inches			Volume In Cu. Ft.	Tare Weight	Type of Floor
	Length	Width	Height		In Lbs.	
A	44'5"	98"	105"	3174	15,900	Wood
B	46'6"	97.5"	106"	3322	23,000	Steel & Wood
C	46'6"	97.5"	106"	3361	20,500	Aluminum

Dimensions are usually supplied in feet and inches. Readers are urged to make their own conversions to metric units.

NOTE: The above are only a small sample of the many types and sizes that are available from carriers. Check with your carrier for the best one for your situation.

Chapter Seven

INSURANCE AND CLAIMS[1]

If the advice in this booklet has been followed, there should be little likelihood of an insurance claim. However, if the worst happens, and there is damage, then read on.

Ocean Cargo Insurance In International Trade

Ocean cargo insurance is concerned primarily with international commerce. Basically, anyone who has an insurable interest in a cargo shipment (i.e. anyone who would suffer a loss if the cargo were damaged or destroyed or who would benefit from the safe arrival of the cargo) has a need for an ocean cargo policy. The cargo insurance policy indemnifies the exporter or importer in the event of loss or damage to goods due to a peril insured against while at risk under the policy.

Historically, each voyage of an ocean going vessel is a joint venture of the shipowner and all the cargo owners. Centuries of tradition, trade practices, maritime and international commercial law affect the interests of the international trader.

Cargo insurance protection is an aid to commercial negotiations. It allows traders to proceed with confidence in the knowledge that each party to the transaction is properly protected. In most cases, the cost of marine insurance is nominal when compared with the value of the goods and the freight cost.

The marine cargo insurance policy can be designed to meet the individual needs of the exporter or importer in an international transaction.

Cargo insurance is available in two basic forms.

A) A Special Cargo Policy (Voyage Policy) - which insures a single specific cargo movement.

B) An Open Cargo Policy

An open cargo policy can be written to cover all cargoes shipped by the Assured in foreign trade by overseas vessels, aircraft, and foreign parcel post. Coverage is afforded while goods are in transit from the seller's warehouse to the buyer's warehouse in due course of transit. The contract is tailor-made to fit requirements of the individual Assured's shipments and can be written to cover broad or named perils.

(1) The material in this chapter has been reproduced from "Guide to Marine Insurance for Ocean Cargo", by the Canadian Board of Marine Underwriters. Some editing has been undertaken with the approval of the Board.

Amount of Insurance

The open cargo policy contains a valuation clause – a formula for determining the amount of insurance in advance of shipment. This formula can be tailored to conform to trade customs or to follow variation in the value of any commodity which is subject to price fluctuations.

A common form of valuation clause reads:

> "Valued at amount of invoice including all charges in the invoice and including prepaid and/or advanced and/or guaranteed freight not included in the invoice, plus ten percent."

The above formula establishes the insured value which generally approximates market or landed value.

The addition to the invoice face value can range from effectively zero to technically an unlimited level depending on a number of factors. This is particularly important where goods are ordered at a fixed price, but with a long lead time to delivery. For example goods sold in early 1988 at $1M value C.I.F. customer plant, against delivery mid 1989, may be worth $1.5M at mid 1989, if the goods had to be remanufactured following loss of the original shipment.

It is therefore extremely important that adequate insurance is purchased to cover all eventualities relative to the shipment, and that the level and terms are agreed upon with your underwriter beforehand.

You should, as the shipper, ensure that all the costs for which you are responsible have been taken into account. These may include: export packing, local cartage, ocean freight (Note: Freight rates can change dramatically in a short period of time), forwarders fees, consular fees etc., etc.

Cost of Insurance

The loss experience developed on an Assured's own account heavily influences the judgment of the underwriter as respects rating. Cargo insurance premiums are calculated by applying a rate to each $100 of insured value. For example, a 25 cent rate on a $10,000 shipment develops a premium of $25.

It is the usual practice to issue with an open cargo policy a schedule of marine rates which can be used by the Assured to quickly and conveniently calculate the cost of insurance on each shipment. One applies the rate quoted in the policy for a specific destination or point of origin and the product to be shipped to the insured value to determine the premium charge. This method is especially convenient to exporters quoting C.I.F. prices in establishing the total cost of shipping goods to overseas destinations.

Type of Loss

There are three areas of possible loss or damage and expense in which your cargo can become involved. The first is Particular Average which is simply partial loss or damage to your own cargo. The second is General Average and this occurs when a sacrifice is made and an extraordinary expense is incurred for the benefit of the whole venture and towards the cost of which your cargo may be asked to contribute. The third type of possible loss concerns the Total Loss of vessel and cargo by sinking, stranding, explosion, fire, and other causes. Where your cargo is totally lost in this way, it is customary for Underwriters to require the full set of negotiable bills of lading, the original invoice and all negotiable copies of the insurance policy or certificate. It should be noted that these documents will also be required where an entire shipment disappears or is non-delivered.

Sometimes damage to the cargo when it arrives is so extensive that the full amount of the insured value is paid by Underwriters. This is known as a Constructive Total Loss, but since it differs only in degree from a partial loss, known as Particular Average, the procedure outlined in the following paragraphs applies in such cases.

The term Particular Average covers partial loss or damage which occurs to your goods and a Consignee is seldom advised of any such shortage or damage, but merely that the ship has arrived and the cargo is available for delivery. If loss or damage has occurred, it then becomes the responsibility of the Consignee or the Agent handling the receipt of the cargo to preserve and protect any claim which the former may have against either the ship or the Insurance Company, or both. It is most important to preserve the claim against the ship since failure to do so may impair or destroy underwriters' rights of subrogation against the carrying vessel and so prejudice your own claim against them.

When your cargo arrives at the final destination as specified in the policy.

(a) Count, weigh, tally, and examine it before accepting delivery. If a container shipment record the seal number. If the seal is broken on arrival note this on the receipt.

(b) Give an explicit receipt, for example, not "3 cases damaged" but "2 cases top broken, 1 case wet."

(c) If possible keep a copy of the receipt, if not make a memorandum of the manner in which it was signed.

(d) Notify your Broker or Underwriter promptly. (Assuming the loss is more than trivial your Underwriter will appoint a surveyor.)

(e) Telephone the carrier, advising him of the loss and invite his inspection.

(f) Write to the carrier, hold him responsible and at the same time, confirm your telephone conversation.

Should you encounter concealed damage, promptness in notifying both the carrier and your Underwriter takes on even greater importance. Written notice of such damage must be given to the carrier within three days after delivery in order to have any chance at all of making recovery. You should also bear in mind that prompt notice of all concealed damage after arrival is sometimes the only evidence Underwriters have that the damage did actually occur during the insured voyage.

The foregoing applies specifically to a Canadian Importer who is insured in Canada. If on the other hand your cargo is insured overseas, your documents will include an insurance Certificate to which you should refer to find the issuing Company's nearest settling or survey Agent. In this situation, you will have to pay the Surveyor's fees before obtaining his Report, but these can be included in your Statement of Claim and will be paid by the Underwriter, if the claim itself is payable. Also in this situation, it is advisable to have all pertinent documents available for the Surveyor's inspection to enable him to write a complete Report. If his Report is incomplete and your claim has to be sent overseas for settlement, this can lead to protracted correspondence and delay.

DOCUMENTING A CLAIM

Documenting a claim is a relatively simple procedure, and if done properly the first time, inconvenience and delay can be avoided.

The following represents a complete list of required documents.

1. A copy of the Supplier's commercial invoice and packing list.

2. A signed copy of the Ocean Bill of Lading.

3. A signed copy of the Inland Bill of Lading or Freight Bill if there was an inland journey not covered by a through Bill.

4. Copy of Customs Entry when duty and sales tax have been insured.

5. Original insurance Certificate or Policy. If reporting under an Open Policy show Open Policy number and declaration.

6. Copy of written claim or notice of claim filed with the last carrier and the original or a copy of any reply received. (The reply may follow other documents, but a copy of the written claim must be sent when a claim is presented to Underwriters.)

7. An original or signed copy of the survey report. If the Surveyor was appointed by Underwriters his report will be mailed direct to them.

8. A copy of the receipt given to the last carrier or to Customs. If a copy is not available then attach a copy of the memorandum showing the nature of the receipt and the exceptions noted.

9. Copy of Dock Receipt.

10. If shortage or non-delivery through a Ports Canada Port a copy of the Missing Cargo Report Form.

11. Most Ocean Bills of Lading provide that the carrier will be discharged from all liability unless suit is commenced within one year from the date of delivery. Therefore, if any claim is submitted to your Broker or Underwriter, more than ten months after delivery, you should obtain a letter from the carrier extending the time to sue by several months. This permits your Underwriters to proceed against the carrier under subrogation, any net recovery being reflected in your loss experience. Failure to protect these subrogation rights may seriously prejudice your claim against Underwriters, and affect your insurance rates.

12. Damage Certificate duly signed by Customs Authorities and Shipping Company's Agents as evidence of pilferage, particularly where dock receipts or other receipts proving shortage cannot be provided. Letter from Shipping Company's Agents or Port Authorities acknowledging the non-delivery of packages.

There can on occasions be exceptions or additions to the foregoing list. However, if you prepare, document, and submit your claim promptly these can receive immediate consideration.

Where Import Duty and Sales Tax are insured, the Importer should take steps to have a Customs appraisal where goods are damaged and a claim should be filed for rebate in accordance with Customs Regulations. Where Pilferage is concerned a Damage Certificate should be obtained from the carrier and a claim similarly filed through the Customs Broker.

Finally, a word about small losses. First let it be said that Underwriters will pay any properly documented loss covered by the policy regardless of size. Nevertheless, no one in business can afford to overlook the cost of collecting a dollar. No figure can be stated here because costs vary from business to business. For the sake of example, though, some years ago it may have been possible for you to collect a five dollar loss for a cost of four dollars. Today, that same loss could be costing you seventy to ninety dollars to collect. This is what it costs the Underwriters who are organized to handle large numbers of claims economically and quickly. The cost includes every action, of any member of your staff, related to the claim from the moment of its discovery until the settlement cheque is processed through your own accounting procedures. At the same time you must also realize that these losses are all charged to your loss experience. Since most Underwriters still see a high volume of very small losses it seems appropriate to bring this matter to notice.

FUNCTION OF THE SURVEYOR

In his inspection of pilfered or damaged consignments, the Surveyor is acting as an impartial observer. It is his duty to report in detail the extent of loss and on the evidence of loss as he sees it. He is not expected to decide whether the loss is, or is not, recoverable under the terms of the policy. His actions and recommendations are aimed at minimizing the loss regardless of what insurance protection is available and do not imply that a claim for loss or damage will be paid by underwriters nor do they prejudice the latter's position in this regard.

Other than small losses, a receiver or shipper is advised to use the service of a qualified surveyor.

One of the most important elements in successful presentation of Marine Claims is promptness, and the danger of delay invalidating an otherwise valid claim cannot be stressed too heavily.

Chapter Eight

SUMMARY CHECK LIST OF DO'S AND DON'TS FOR SHIPPERS

- Don't be afraid to venture into the export market, but do so with consultation and advice from your export association, a professional freight forwarding organization, an authoritative cargo insurance broker, or other recognized associations.

- Do understand where your goods actually have to go and how they will get there, by what transportation modes, as well as how long it will actually take.

  Look at an atlas, think about what you would need to know if you had to get there.

- Do take into account the possibilities of delays, hold ups, and weather extremes.

- Do take time to discuss with your forwarder or packer all the variations for both packing and methodology of stow.

- Don't take short cuts.

- Don't go ahead without a preplan of how you are going to stow for the intended move. What precautions you are going to take, what materials you are going to require, and how are they going to be used.

- Don't hesitate to revise your stowage plan.

  It is better to have made several paper stowage plans than load and unload a container or trailer several times.

- Do call for a cargo surveyor to look at your plan should you be unsure. Your insurance broker will help you here, or go directly to the surveyor association.

- Do order the correct size of sea container or trailer that you need.

- Do not be concerned to decline equipment that you did not order.

- Do check the equipment thoroughly on arrival, if you are unsure of what to look for ask your surveyor to undertake the task.

- Do ensure that all your cargo is ready to load.

- Don't be afraid to check the load stow again before commencing - with your measuring tape!!
- Do not rush the load, ensure that your preplan and precautionary measures are being adhered to.
- Don't hesitate to take photographs as the stow proceeds.
- Don't ignore damage on loading, regardless of how small it is.
- Do have your own surveyor check the stow before closing, locking, and sealing the doors if you are unsure.

- Do consider your own reaction if you received goods in a damaged or useless condition because of lack of care in stowage.
- Don't think that because the insurance company has provided a monetary recompense for the damage, that damage control is over.
- Do ensure that the goods have been packaged and stowed so that despite any problems en route, they arrive in good condition — just the way you would like to receive products.

Remember it is your business that you are looking after.

Annex 1

THE MOST COMMONLY USED IMO CAUTIONARY SIGNS AND MARKS

Cautionary signs and placards for hazardous cargo have been developed through the work of the International Maritime Organization (IMO). The following chapter reproduces both text and symbols from IMO documents. Shippers are urged to obtain their own full colour version of the placards and signs from the IMO.

SOLAS Convention - Safety of Life at Sea.

According to regulation 4 (marking, labelling and placarding) of part A of chapter VII of the 1974 SOLAS Convention, as amended, packages containing dangerous goods shall be durably marked with the correct technical name and be provided with distinctive labels or stencils of the labels, or placards, as appropriate.

IMDG Code - International Maritime Dangerous Goods Code.

Labels and placards are assigned to each class of dangerous goods in the IMDG Code, and denote the hazards involved by means of colours and symbols. Colours and symbols should be as illustrated except that symbols and texts on green, red and blue labels and placards may be white.

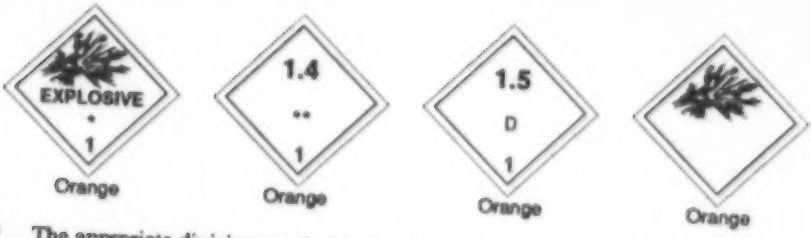
The class number should appear in the bottom corner of the label or placard. The use of the texts shown on the illustrations and of further descriptive texts is optional. However, for class 7 the text should always appear on the labels and the special placard. If texts are used for the other classes, the texts shown on the specimens are recommended for the purpose of uniformity.

Dangerous goods which possess subsidiary dangerous properties must also bear subsidiary risk labels or placards denoting these hazards. Subsidiary risk labels and placards should not bear the class number in the bottom corner.

Labels for packages should not be less than 100mm x 100mm except in the case of packages which, because of their size, can only bear smaller labels. Placards for cargo transport units should not be less than 250mm x 250mm, should correspond with respect to colour and symbols to the labels and should display the number of the class in digits not less than 25mm high.

Some consignments of dangerous goods should have the UN number of the goods displayed in black digits not less than 65mm high either against a white background in the lower half of the placard or on a rectangular orange panel not less than 120mm high and 300 mm wide, with a 10mm black border, to be placed immediately adjacent to the placard.

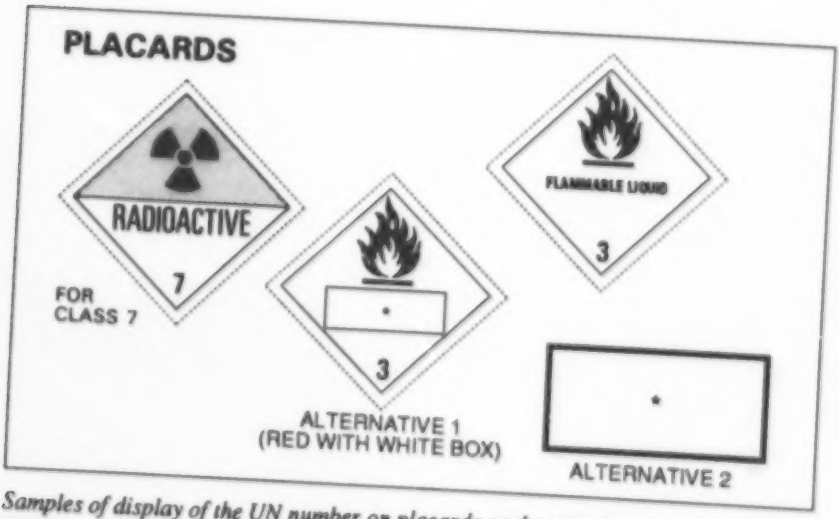
All labels, placards, orange panels and marine pollutant marks should be removed from cargo transport units or masked as soon as the dangerous goods are unpacked and any residue removed. The detailed requirements regarding marking, labelling and placarding are contained in the IMDG Code.



* The appropriate division number and compatability group are to be placed in this location, e.g. 1.1 D.

** The appropriate compatability group is to be placed in this location, e.g. G. For goods of class 1 in division 1.4 compatability group S, each package may alternatively be marked **1.4S.**

Explosive subsidiary risk label for self reactive flammable solids (class 4.1) and organic peroxides which possess explosive properties (class 5.2).



Samples of display of the UN number on placards or the orange panels for cargo transport units.

MARK

MARINE POLLUTANT mark for harmful substances (environmentally hazardous substances) according to Annex III of MARPOL 1973/78, as amended. The mark should be in a contrasting colour to the packaging, or, when used as a sticker, coloured black and white. For packages the triangular shaped mark should have sides of at least 100mm except in the case of packages which, because of their size, can only bear smaller marks. For cargo transport units this dimension should be not less than 250mm (Amendment No. 25-89 to the IMDG Code entering into force not later than 1 January 1991).

Annex 2

PRINCIPAL INTERMODAL TERMS AND DEFINITIONS

(The following are for guidance only and should not be used as legal definitions of the terms)

Cell Guides – Vertical guides (similar to those in an elevator shaft) within which the container fits and is constrained at its four vertical corner posts. The containers are stacked one above the other and the bottom container takes the static and dynamic vertical loads resulting from those resting on it. These loads are transmitted through the corner posts of the containers to a reinforced doubling plate on the tank top, or bottom of the hold.

Cellular Containership - A vessel designed to carry standard freight containers in cells formed by a system of guides. The vessel hatch covers are specially arranged to carry several tiers of containers. Such vessels usually cannot carry other cargo without undergoing major conversion work.

Chassis Frame – This unit serves as a chassis, but without fixed wheels. It is the centre of a three piece combination; the container, the chassis frame, and the bogie. The container is secured to the top of the chassis frame by four corner tie down fittings. The bogie is secured to the bottom of the frame in the same manner as it would be secured to a container were it a two piece combination.

Combination Containerships – In addition to cell holds for the accommodation of containers, other distinctive means of handling cargo are present in the same hull; roll-on roll-off, palletized cargo handling through side ports, or the capability for transporting bulk commodities in the lower holds.

Container (Basic Definition) – An enclosed, permanent, reusable, non-disposable, weather-tight shipping conveyance. Fitted with at least one door, and capable of being handled and transported by existing carrier-owned equipment, both land and sea.

Container/Bulk Carrier - Often referred to as a Conbulker. These vessels are bulk carriers with hold/hatch dimensions arranged to permit stowage of containers in some holds. These may have portable cell guides. Hatch covers are strengthened to permit deck stowage of containers.

Container Chassis – A semitrailer chassis with tie down corner fittings for receiving and securing a container of modular size. The 20 ft. chassis can be either a single of tandem axle, depending upon the load requirements. The 40 ft. chassis is a tandem axle unit and is usually equipped with sufficient tie down fittings to enable it to accommodate either two 20 ft. or one 40 ft. container.

Container on Flat Car (COFC) – Is the form of piggyback where the container is first demounted from the chassis or bogie, prior to being loaded and secured directly onto a railroad flat car. It is "piggyback" without wheels.

Containerization – Is the act of using containers for the transportation of general commodities. In a narrower sense, it is the placing of the commodities in the container in a secure manner, and the eventual removal of said commodities in an orderly manner at destination.

Containership - A container ship is one which is designed specifically for the carriage of standard freight containers. Various types may be identified such as:

Cellular Containership
Container/Bulk Carrier
Semi Container Ship
Ro Ro Ship

Standard containers are built to conform to certain international dimensions determined from time to time by TC 104 (Technical Committee 104) of the International Standards Organization.

Destuff - To empty a container.

Full Containership - See Cellular Containership.

House-to-House – Shipment is containerized at the shipper's factory or warehouse, and then transported to the consignee's premises, where the cargo is unloaded.

House - to - Pier - Shipment is containerized at shipper's factory or warehouse. It is then destuffed at the discharge pier prior to final delivery.

Intermodal Coordinated Transport - This is normally used to describe the capability of interchange of container units among the various carriers. The fact that the containers are of recognized modular dimensions, and have common handling characteristics, permits them to be transferred from trucker, to railroad, to ocean carrier, in an origin-to-destination movement.

Pier-to-House – Cargo is containerized on the loading pier of the ocean carrier handling the shipment. Upon termination of the movement, the container is moved off the arriving pier and delivered directly to the consignees' factory or warehouse for removal of the shipment.

Pier-to-Pier – Ocean carrier containerizes shipper's cargo on the loading pier, and removes cargo from the container on the arriving pier.

Piggyback – The point-to-point movement of one transportation vehicle upon another. A highway semitrailer on a railroad flat car is the usual form of piggyback transportation.

Road Railer – A standard 45' dry van fitted with a hydraulically adjusted bogie between the rear axles. The unit is thus bi-modal and can operate on either rail or road.

Ro-Ro Ship - Such vessels usually have stern ramps (but may have side doors) that permit cargo to be driven on and off on regular trailers, or special low profile trailers. Some vessels combine both ro ro and cellular containership features.

Semi-Containership – (Also known as a **Partial Containership**) – A conventional general cargo ship with one or two holds fitted with vertical cells. In most configurations, additional holds can be converted to cell stowage, if container traffic demands. Non-standard cargo containers and/or break bulk cargo is carried in the conventional holds and 'tween decks.

Single Axle Bogie – An assembly consisting of two wheels, axle, suspension system, and overhead mounting for securing and supporting one 20 ft. container. The bogie also carries rear lights, license plates, and mud guard flaps.

Special Purpose Containers – See Chapter Six

Split-Away Chassis –A 40 ft. chassis constructed so that it detaches at mid-point and becomes two 20 ft. chassis; each fitted with tie down corner fittings for receiving and securing a 20 ft. container. The two single axle bogies work in tandem when the chassis are joined together to form a 40 ft. unit, but separate (one under each chassis) when the unit is split into two 20 ft. chassis.

Stuff - To load a container.

Trailer on Flat Car (TOFC) – Probably the most common and best known form of piggyback. Highway truck trailers are either lifted on and off in side transfer, or else end loaded unloaded from a fixed ramp. When containers move in this type of service they are first mounted on a chassis or bogie, prior to loading on the piggyback rail car.

Unitization – The consolidation of a number of individual items into one large shipping unit for easier handling. It is also the securing or loading of one or more large items of cargo onto a single structure, such as a pallet.

Annex 3

COMMON EXPRESSIONS, STANDARD TERMS, AND ABBREVIATIONS

(The following are for guidance only, and should not be used as legal definitions of the terms)

Surface Only

a.a.r or A/R	Against all risks (marine).
A/C	Account current.
a/c or acct.	Account.
Act of God	Similar to force majeure, but applies to natural occurrences as disaster only (see Force majeure).
A/D	After Date
Ad Valorem or A/V	According to value.
Against	In foreign commerce, synonym for "upon."
a meta	(Ital.) Sharing of profit & loss 50:50.
Apparent good order	Statement denoting that goods are free from damage and in good condition, as far as their external appearance is concerned.
Appraiser's Stores	Government-owned warehouse, where examiners (appraisers) inspect and survey designated goods imported from abroad.
Assailing Thieves	Taking property by force, does not include sneak theft, or pilferage.
Assignment	Legal transfer of title, property, or right.
A.T.	American terms.
Average	Partial loss or damage.
Average Bond	See General Average.
Average Clause	Clause in a marine policy which sets out the cover provided in the event of partial loss.
Average Guarantee	See General Average.
Average irrespective of Percentage	Indicates that partial losses will be paid regardless of any franchise or percentage.

Ballast	Water carried by ships in special tanks for stability.
Barge	Lighter.
Barratry	Criminal or wrongful act by the ship's master or crew causing loss or damage to the ship or cargo.
Berth	Ships place at dock.
Berth Rates	Rates charged by scheduled liner services.
Bill of Lading	Document issued by an ocean carrier as a receipt of the goods and undertaking of their delivery to the consignee. Bill of Lading works as a document of title to the goods mentioned therein.
B/L	Bill of Lading.
Blank Endorsement	Writing only one's own name on the back of a document as an instrument of transfer of the rights resulting from that document.
Bonded Warehouse	Warehouse where goods are stored under Customs control and supervision prior to payment of duties.
Break Bulk	General cargo that is handled by the piece eg. steel, crates, machinery.
Broker	Middleman between two contractual parties (buyer/seller, charterer/owner).
Brokerage	Fee or commission paid to a broker for services performed.
Bulk	An homogenous mass of a product, unpackaged.
c.a.d.	Cash against documents.
c.f., cbf, cb.ft.	Cubic feet.
Charter	To engage a ship for own use or that of a client for one voyage (voyage charter) or a specific period of time (time charter).
C.I.F./cif	Cost, insurance, freight.
C. & F./ c & f	Cost and freight.
C.I.F. & C.	Cost, insurance, freight, and commission.
C.I.F. & E.	Cost, insurance, freight, commission, and interest.
CIM	International Rail Cargo Convention.
C.M.R.	International Convention for Road Transport Contracts.
c.o.d.	Cash on delivery.

c/o	Care of.
Commodity Rates	Special Freight rates for specific commodities rather than general cargo rates.
Comecon	Council of Mutual Economic Aid (of the Communist bloc countries).
Conference	Liner organization which fixes rates and sailings for the purpose of limited competition between members and "outsiders."
Consignee	Receiver of goods.
Consignor	Shipper of goods.
Consolidator	Business enterprise that groups smaller consignments to form one large shipment in order to achieve and grant more favourable freight rates.
CTL/Constructive Total Loss	Situation existing when the cost of repairing or recovering lost or damaged property plus the value of salvage would exceed the goods' value when repaired or recovered.
CWT	Hundredweight
D/H	Dead Head
D/P	Documents against payment.
Dunnage	Lumber used in stowing cargo.
E. & O.E.	Errors and omissions excepted.
Endorse	Sign one's name on back of document (cheque, B/L), see Blank Endorsement.
F.a.a.	Free of all average.
Factura	Bill, invoice.
F.A.K. Rates	Freight all kinds rates apply to any goods in a certain size of container between two ports or ranges of ports. For example, there will be one rate for a 20 ft. container and another for a 40 ft. unit.
F.A.S./fas	Free alongside.
FB	Freight bill.
FBL	FIATA Combined Transport Bill of Lading.
FCL	Full container load.
FTL	Full truckload.
FCR	Forwarding Agent's Certificate of Receipt.

f.i.o.	Free in and out.
f.i.o.s.	Free in and out stowed.
f.i.w.	Free in wagon.
FLT	Fork lift truck.
FMC	Federal Maritime Commission (U.S.A.).
FOB/fob	Free on board.
f.o.q.	Free on quay.
f.o.r.	Free on rail.
Force Majeure	Occurrences of such unusual or unexpected nature so as to force one party to be unable to comply with terms of contract.
f.o.t	Free on train or truck.
F.P.A., f.p.a./fpa	Marine term meaning limited cover or conditions.
f.w.d.	Freshwater damage.
Face Value	Nominal value on coin, paper currency, or other negotiable instrument: may be lower or higher than the market value.
General Average	Loss arising through a voluntary sacrifice of any part of the ship or cargo, or an expenditure to save the ship and the rest of the cargo from a common danger (see Jettison). Such losses or expenditures are distributed among all parties interested at risk on the basis of the respective values involved.
General Average Bond	Document required of cargo owners after a "General Average" loss, obtaining their agreement to pay any contribution that may become due.
General Average Guarantee	Given by cargo underwriters, after a "General Average" loss, agreeing to meet their Assured's liability for contribution.
General Order Warehouse	A bonded warehouse to which goods that are not claimed within five days after arrival are sent at the owner's expense.
Godown	Far East warehouse.
Hatch	An opening in the deck of a vessel through which cargo is loaded.
I.C.C.	Institute Cargo Clauses. Interstate Commerce Commission of the United States.

IMDG	International Maritime Dangerous Goods Code.
IMO	International Marine Organization
Incoterms	International Chamber of Commerce terms of sale.
Inv.	Invoice.
Ins.	Insurance
In trans.	In transit.
Insurance Rider	Additional clause, amending or supplementing the insurance policy.
I.S.O.	International Standards Organization.
J/A	Joint account.
Jettison	Throwing cargo or ship's property overboard to save other property from common danger (see General Average).
KD	Knocked down.
KDF	Knocked down flat.
Knot	Equivalent to one nautical mile (6,080 ft.) per hour.
Lash	Lighter aboard ship.
L/C	Letter of Credit.
LCL	Less than container load.
LTL	Less than truckload.
Liner Terms	All costs for loading, stowing, securing, and unloading the goods are for vessel's account.
m.v.	Motor vessel.
Manifest	A list of goods loaded aboard one conveyance.
Mate's Receipt	Document issued by a Chief Officer of a vessel evidencing that the goods having been actually loaded aboard. The Bill of Lading for the respective goods is issued in exchange for the Mate's Receipt.
min., m/m	Minimum.
N/C	No charge.
N/B	(nota bene) - Mark well.
n.o.s.	Not otherwise specified.

Notify Party	Party to be notified (informed) of goods'/vessel's arrival, usual with Bills of Lading issued "to order" in blank.
NSTD	Nosted.
NNSTD	Not Nosted.
ON	Order notify.
O/R	Owner's risk.
OS&O	Over, short or damage.
Outsider	Non Conference
P/a	Particular average.
p.a.	Per annum.
Particular Average	A partial loss caused by marine perils, other than a "General Average" loss.
PCV	Public Commercial Vehicle.
Perils of the Sea	Hazards arising on navigable waters through natural forces such as heavy seas, high winds etc.
Pro-No	Freight bill number.
R/O, R.O.	Rousing Order.
R.U.	Refused unclaimed.
Ro/Ro	Roll-on/Roll-off.
SL&C	Shippers load and count.
Shipped B/L	Bill of Lading evidencing that goods covered have actually been loaded on board the named vessel.
Short-shipped	Cargo manifested, but not loaded.
S.S.	Steamship
S.U.	Set Up.
Sue and Labour Charges	Charges incurred by an Assured in averting or diminishing a loss. They are recoverable in addition to the full sum insured.
Tally Sheet	List of cargo, incoming and out-going, checked by tally clerk on dock.

Through B/L	Bill of Lading covering transport involving more than one mode of transportation to or from inland points.
TIR	Transports Internationaux Routiers (French); this sign is found on motor trucks holding the Carnet TIR, a book of bond notes for international transborder road haulage (Europe).
Usance	Time allowed for payment of foreign drafts.
Via	By way of.
Viz.	Namely.
Vol.	Volume.
W.A.	With average.
W.B.	Waybill.
W/C	Weight and charges.
W/M	Weight or measurement.
W.O.	Without.
W.P.A.	With particular average.
W.R.O.	War risks only.
W/T	Weight.
W/W	Warehouse warrant.
Weight, legal	Net weight of goods, plus inside packing.
Y/A	York-Antwerp Rules; an international code governing General Average.

Annex 4

MANUALS FOR REFERENCE

1. Kuehne & Nagel - KN Transport Manual.
2. The Canadian Board of Marine Underwriters - Guide to Marine Insurance.
3. The Canadian Board of Marine Underwriters - Guide to Marine Insurance for Ocean Cargo.
4. CIGNA Insurance Company of Canada - "Ports of the World" - A guide to cargo loss control.
- 5. Canadian Trucking Association - "National Freight Claims Manual."
6. International Maritime Organization Manual on Hazardous Goods Shipment and Labelling.
7. Canadian Transportation and Distribution Management - "1990 Transportation Guide of Services."
- 8. Canadian Trucking Association - Dangerous Goods: A Trucker's Guide.
- 9. Canadian Trucking Association - Safety Code: A Trucker's Guide.
- 10. Canadian Trucking Association - Crossing the Canada/USA Border: A Trucker's Guide.
11. CN Intermodal Service: Facts, Features and Facilities - CN Rail Intermodal, available from your local CN Rail office.
12. Container/Trailer Blocking and Bracing Manual - CP Rail Intermodal freight systems.

NOTE: The four publications marked with an asterisk are available from your provincial trucking association.

Annex 5

ACKNOWLEDGEMENTS

Grateful acknowledgement to the following for providing information in the preparation of this publication.

CIGNA Insurance Company of Canada.
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Canadian International Freight Forwarders Association
The Canadian Board of Marine Underwriters.
Eastern Marine Underwriters
Fednav Limited
Glasvan Trailers Inc.
Halterm Container Terminal Operators
ITEL Containers International Corporation.
International Maritime Organization.
Johnson & Higgins Willis and Faber.
Kuehne & Nagel International Ltd.
McGregor Cory Cargo Services, Rotterdam, The Netherlands.
McKie Marine Surveyors Ltd.
OOCL (Canada) Inc.
Port of Hamilton.
The Port of Toronto.
Saguenay Shipping.
Sea Containers.
T.N.T. Canada.
Toplis and Harding Canada Inc.
Universal Transport